

### COMMERCIAL

# Fe<sup>26</sup> PLUS commercial iron railing SIMPLIFIED

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# Fe<sup>26</sup> IRON RAILING SIMPLIFIED

### **POSTS**





#### Fortress Fe<sup>26</sup> 3" (76mm) Post Mounting Applications

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

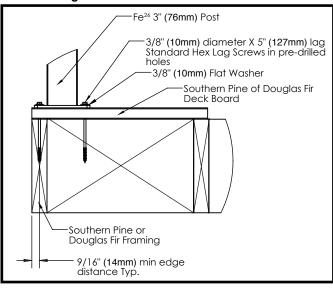
Fortress Fe<sup>26</sup> Posts must always be secured to the deck framing. Fortress Fe<sup>26</sup> Posts should never be attached to only the deck boards.

#### **Note**

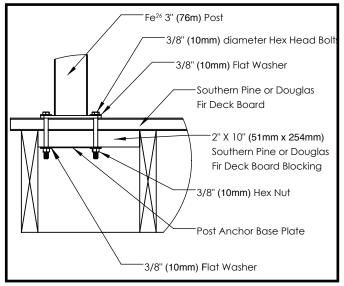
When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps will result in rust at the cut areas:

- · Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. Allow paint to dry.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

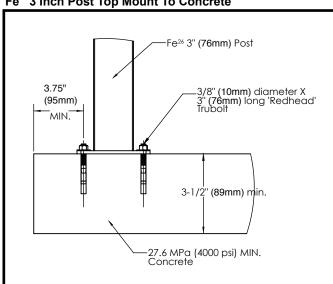
Fe<sup>26</sup>3" (76mm) Inch Post Top Mount to Southern Yellow Pine or Douglas Fir Floor Joist Mounted Parallel



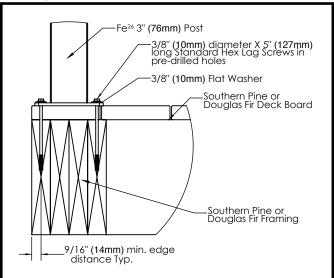
Fe<sup>26</sup> 3" (76mm) Inch Post with through bolt & base plate on bottom



Fe<sup>26</sup> 3 Inch Post Top Mount To Concrete



Fe<sup>26</sup> 3 Inch Post Top Mount To Southern Pine or Douglas Fir Floor Joist Mounted Perpendicular



For technical assistance, please email: technicalhelp@fortressrailing.com Hours of Operation: Monday through Friday 7:00 AM to 6:00 PM, CST Phone: 1-844-909-2999 Fax: 972-372-0924

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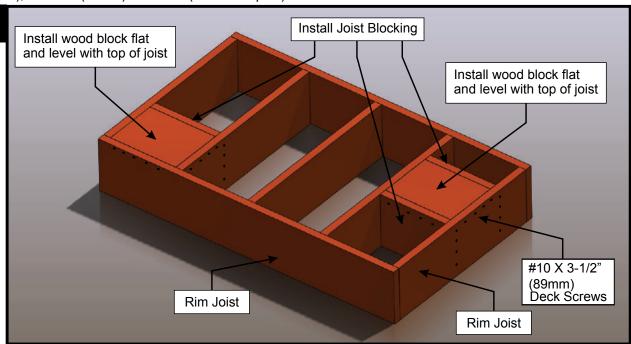


#### Fortress Fe<sup>26</sup> Posts Installed on a Wood Deck

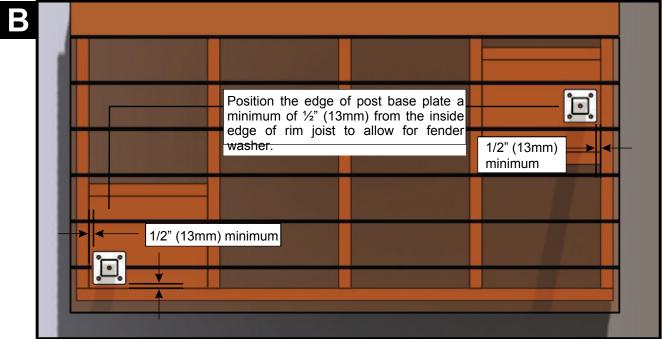
It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

Fortress Iron Posts must always be secured to the deck framing. Fortress Iron Posts should never be attached to only the deck boards.

**Required Materials:** Wood Blocking,3/8" X 3-1/2" (10mm x 89mm) Hex Head Galvanized Bolts (4 for each post), 3/8" (10mm) Galvanized Washers (4 for each post), 3/8" (10mm) Fender Washers (4 for each post), 3/8" (10mm) Split Lock Washers (4 for each post), and 3/8" (10mm) Hex Nuts (4 for each post).

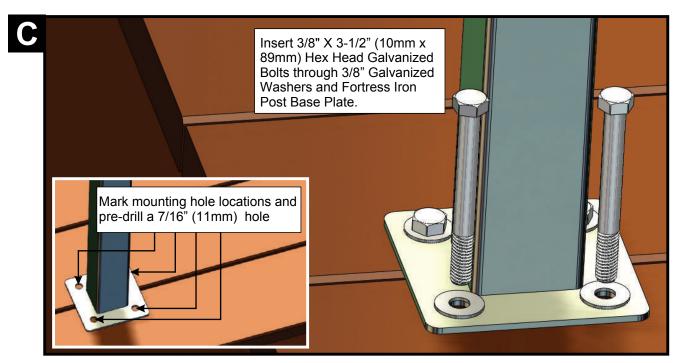


- Blocking must be constructed with treated dimensional lumber.
- Attach all blocking with #10 X 3-1/2" (89mm) deck screws.
- Wood Block must be constructed with treated dimensional lumber with a minimum thickness of 1-1/2" 38mm).
- Secure Wood Block to blocking on all four sides with #10 X 3-1/2" (89mm) deck screws.

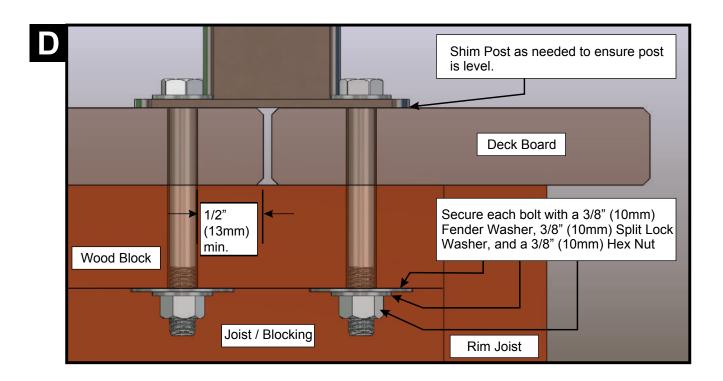




## **Surface Mounting Fortress Iron Posts Installed** on a Wood Deck



- Iron Post Base Plate holes **MUST** be positioned a minimum ½" (13mm) from edge of deck board.
- Use only 3/8" (10mm) Hex Head Galvanized Bolts. Lag Screws should NOT be used.
- · Secure each post with four bolts.



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# Fe<sup>26</sup> PLUS COMMERCIAL IRON RAILING SIMPLIFIED

### PANELS AND BRACKETS





# Installation Instructions for Fortress Fe<sup>26</sup> Plus Traditional Railing Panels with Universal (UB) Brackets and Fe<sup>26</sup> Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

Fortress Fe<sup>26</sup> Posts must always be secured to the deck framing. Fortress Fe<sup>26</sup> Posts should never be attached to only the deck boards.

#### **Note**

When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps may result in rust at the cut areas:

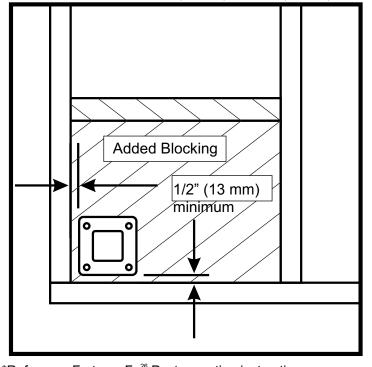
- · Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket to post.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

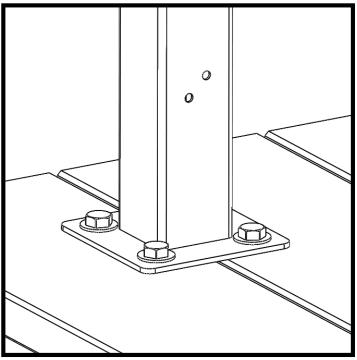
#### **Required Materials**

Drill, 3/16" Drill Bits, T-25 Driver Bit, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3" (76 mm) Support Blocks and Hammer.

#### Mount Fe<sup>26</sup> Posts\*

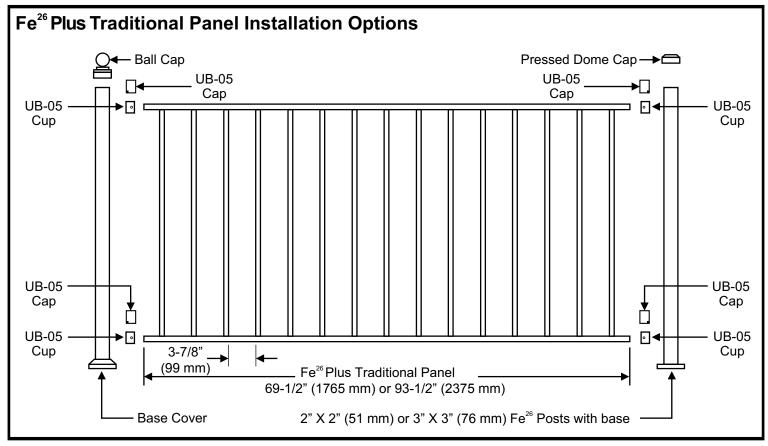
- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1-1/2" (38 mm).
- Position the edge of Fe<sup>26</sup> Post base plate a minimum of ½" (13 mm) from the inside edge of rim joist.
- Mount Fe<sup>26</sup> Posts at appropriate points based on panel length.
- Attach Fe<sup>26</sup> Posts with 3/8" (10 mm) X 3-1/2" (89 mm) Hex Head Galvanized Bolts.

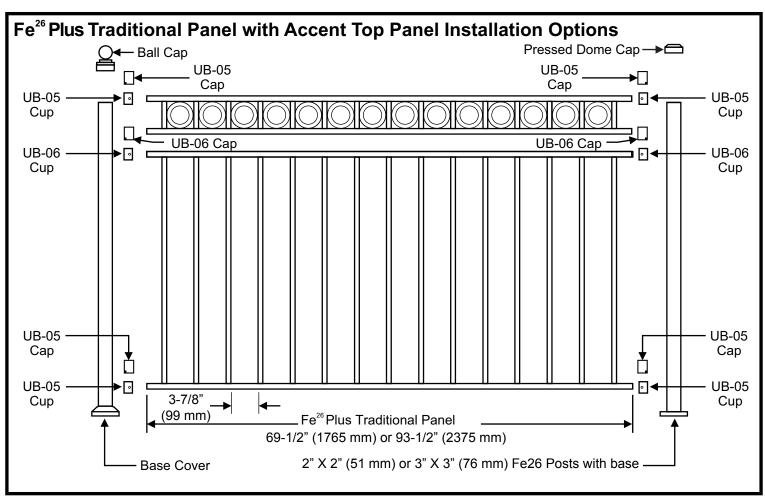


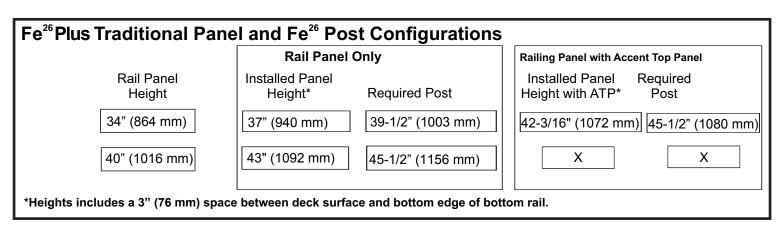


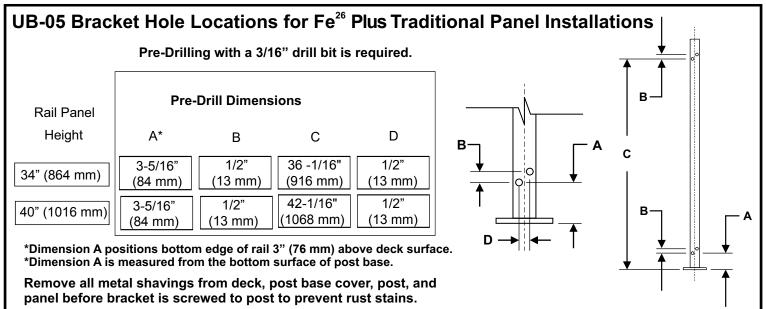
\*Reference Fortress Fe<sup>26</sup> Post mounting instructions

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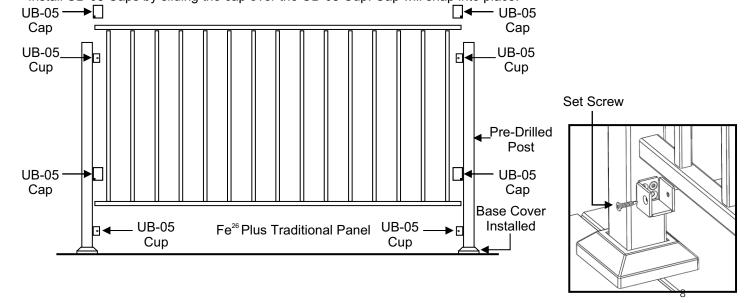




#### Fe<sup>26</sup> Plus Traditional Panel Installation with UB-05

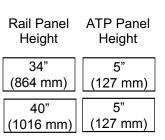
When using UB-05 brackets, rails MUST be cut 1/2" (13mm) shorter that the distance between posts. 1/4" should be cut from the end of each rail to keep rail panel centered between posts.

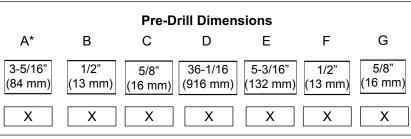
- · If rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- Check fit of rail between installed Fe<sup>26</sup> Posts.
- If using a Base Cover install it now by sliding over the top of Fe<sup>26</sup> Post.
- Secure UB-05 brackets to Fe<sup>26</sup> Posts with provided T-25 Drive Thread Cutting Screws. Use two screws per bracket. Use low speed on drill.
- Drop Fe<sup>26</sup> Plus Panel into installed UB-05 brackets.
- Secure rails with provided set screws at each UB-05 bracket.
- Install UB-05 Caps by sliding the cap over the UB-05 Cup. Cap will snap into place.

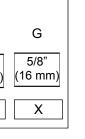


#### **UB Bracket Hole Locations for Fe<sup>26</sup> Plus Traditional Panel Installations** with Accent Top Panel

#### Pre-Drilling with a 3/16" drill bit is required.







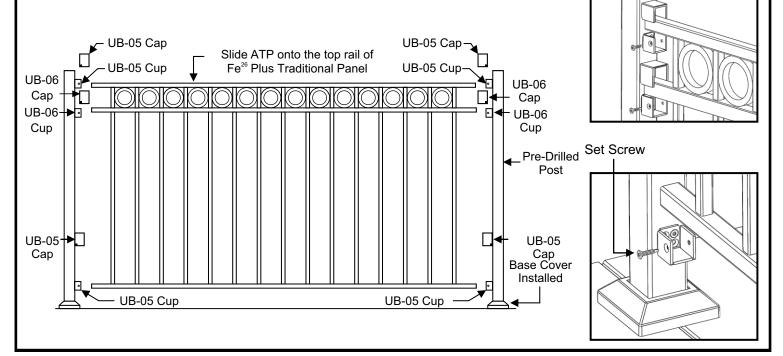
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Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent rust stains.

#### Fe<sup>26</sup> Plus Traditional Panel with Accent Top Panel (ATP) Installation with UB-05 and UB-06

When using UB brackets rails MUST be cut 1/2" (13 mm) shorter that the distance between posts. 1/4" (6 mm) should be cut from the end of each rail to keep rail panel centered between posts.

- If rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- · Check fit of rail between installed posts.
- If using a Base Cover install it now by sliding over the top of Fe<sup>26</sup> Post.
- Slide ATP panel over the top rail of the Fe<sup>26</sup> Plus Traditional Panel
- Secure UB brackets to Fe<sup>26</sup> Posts with provided T-25 Drive Thread Cutting Screws. Use two screws per bracket. Use low speed setting on drill.
- Drop Fe<sup>26</sup> Plus Traditional Panel into installed UB brackets.
- Secure rails with provided set screws at each UB bracket. Only 1 set screw is required to secure rail to bracket.
- Install UB-05 and UB-06 Caps by sliding the cap over the UB Cup. Cap will snap into place.



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<sup>\*</sup>Dimension A positions bottom edge of rail 3" (76 mm) above deck surface.

<sup>\*</sup>Dimension A is measured from the bottom surface of post base.



#### Installation Instructions for Fortress Fe<sup>26</sup> Plus Traditional Adjustable Panels with Universal Brackets and Fe<sup>26</sup> Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company nor its distributors shall not be held liable for improper or unsafe installations.

Fortress Fe<sup>26</sup> Posts must always be secured to the deck framing. Fortress Fe<sup>26</sup> Posts should never be attached to only the deck boards.

#### **Read Instructions Completely Before Starting Installation**

#### Note

When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps will result in rust at the cut areas:

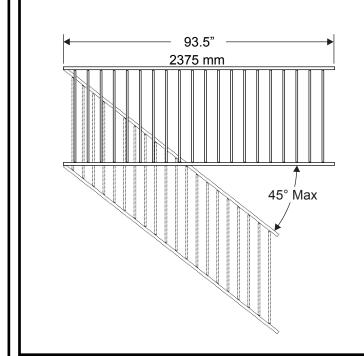
- Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket to post.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

#### Required Materials

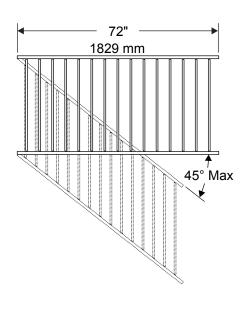
UB-05, UB-05 Angle Adapter, Drill, 3/16" (5 mm) Drill Bit, Phillips Head Screw Driver, T-25 Driver Bit, Metal Cutting Saw, Tape Measure, Wrenches, Pencil, Speed Square, Center Punch, Support Blocks, Clamps and Hammer.

#### Fe<sup>26</sup> Plus Traditional Adjustable Panels

Fe<sup>26</sup> Plus Traditional Adjustable Panel 8' (actual length 93.5" or 2375 mm) Available Heights 34" (864 mm) and 40" (1016 mm). Maximum rake angle 45°



Fe<sup>26</sup> Plus Traditional Adjustable Panel 6' (actual length 72" or 1829 mm)) Available Heights 34" (864 mm) and 40" (1016 mm). Maximum rake angle 45°

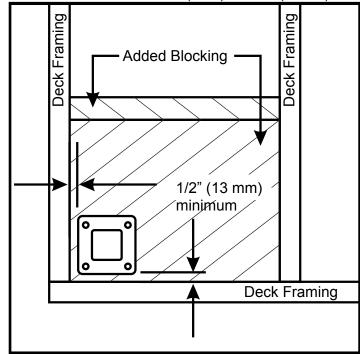


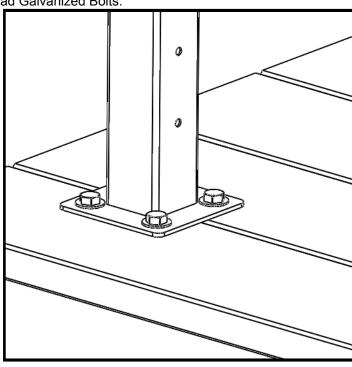
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Important - Every stair installation will be different. The rise and run, post position, and post height all need to be carefully laid out before posts are permanently installed and Fortress Fe<sup>26</sup> Plus Traditional Adjustable panels are cut.

#### Mount Fe<sup>26</sup> Posts\*

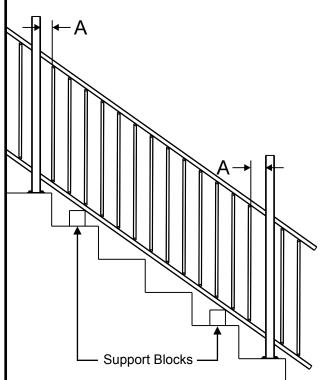
- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1-1/2"(38 mm).
- Position the edge of Fe26 Post base plate a minimum of ½" (13 mm) from the inside edge of rim joist.
- Mount Fe26 Posts at appropriate points based on panel length.
- Attach Fe26 Posts with 3/8" (10 m) X 3-1/2" (89 mm) Hex Head Galvanized Bolts.





\*Reference Fortress Fe<sup>26</sup> Post mounting instructions

#### Determine Rake and Center Panel Between Fe<sup>26</sup> Posts



Use Fe<sup>26</sup> Plus Adjustable Panel to determine the angle of stair installation. To do this use support blocks resting on the stair tread. Position support blocks so that the position of the bottom rail meets the spacing requirement of your building code.

Rake the panel so that the balusters run parallel with the posts. Center the balusters so that there is a equal amount of rail between the post and baluster at each end (Dimension A).

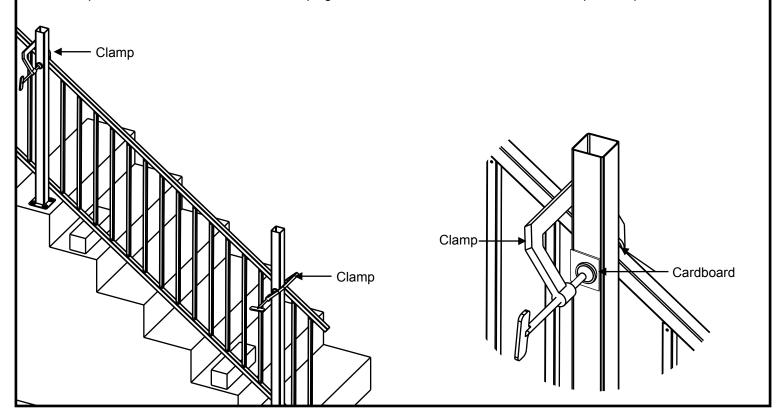
Make sure that there is enough clearance between the post and first picket to allow for the bracket.

Mark location of support blocks.

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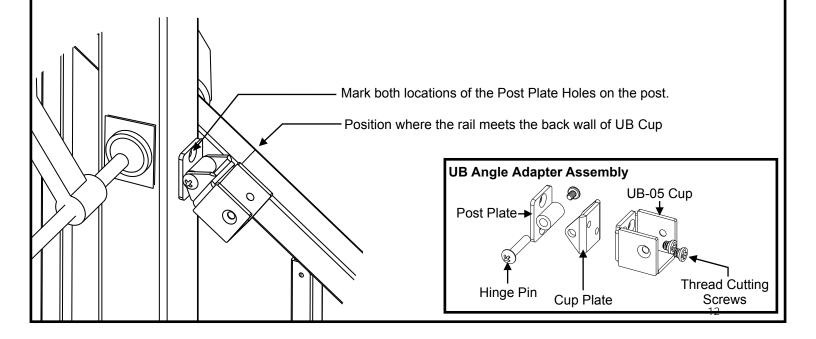
#### **Verify Panel Position and Secure with Clamps**

- Verify the position of the panel. With the help of another person, secure the panel into the correct position and secure with clamps at each end of panel.
- Place a piece of cardboard between the clamping surfaces and the surfaces of the rails and posts to protect the finish.



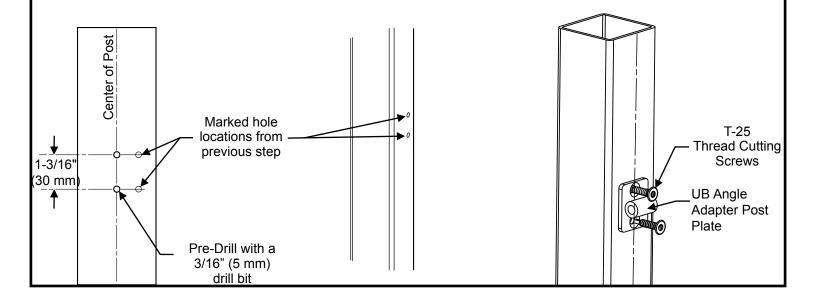
#### Assemble Universal Bracket Angle Adapter to UB-05 and Mark Rail Length

- Assemble the Universal Bracket Angle Adapter Assembly to the Universal Bracket Cup with supplied screws. Do not over tighten hinge pin, as it will be temporarily removed in a later step.
- Place Universal Bracket Angle Adapter against post and position the cup so that it is parallel to the rail. With a pencil mark the position where the rail meets the back wall of the UB Cup on the top of the rail. With bracket in the same position mark the hole locations of the Post Plate on the post. **DO NOT DRILL HOLES AT THIS TIME**.
- Repeat this step for all four Universal Bracket Angle Bracket Locations.



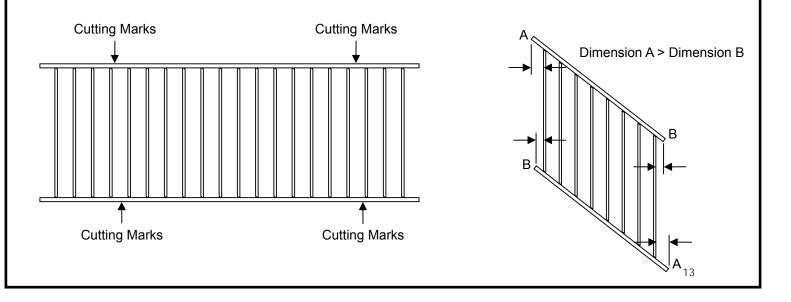
#### **Pre-Drill and Install Universal Bracket Post Plates**

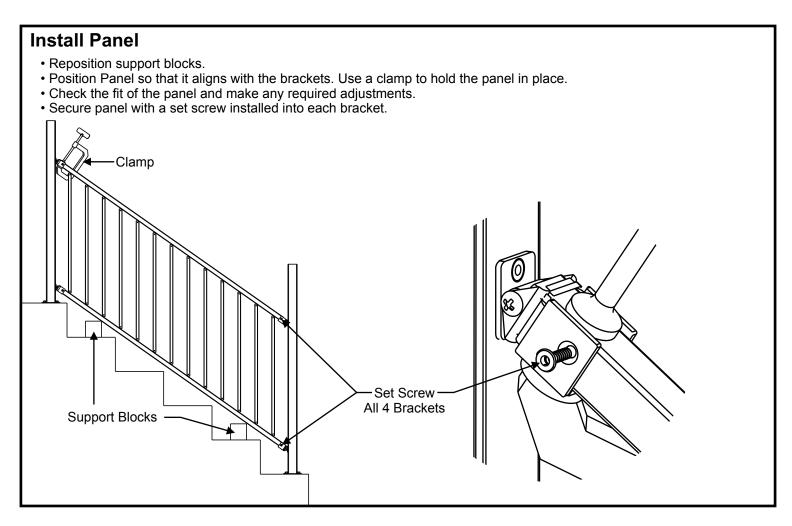
- Remove c-clamps and panels.
- Mark the centerline of each post. The UB Brackets will be installed on the centerline, not the locations marked in the previous step.
- Use a center punch and hammer to mark the hole locations and pre-drill all bracket hole locations.
- Remove Hinge Pin from UB Angle Adapter Assemblies.
- Attach UB Angle Adapter Post Plates to post with supplied 3/4" (19 mm) T-25 Drive Thread Cutting Screws.
- Reassemble UB Angle Adapter Assemblies with Hinge Pins
- Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent rust stains.

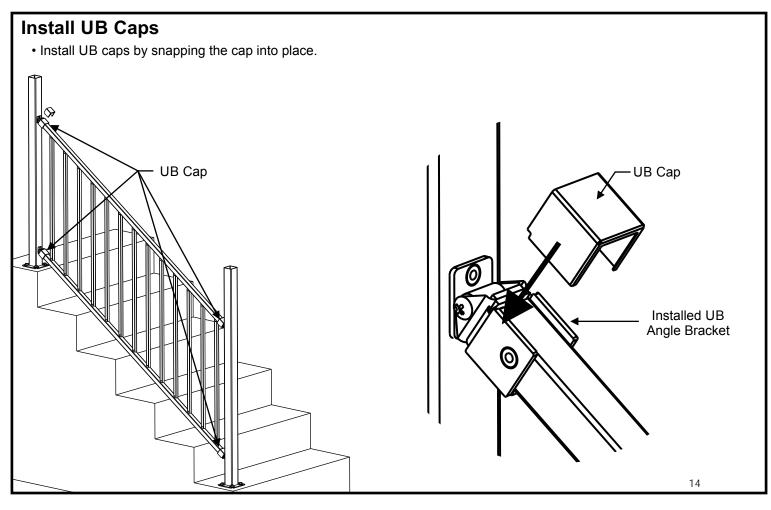


#### Cutting Fortress Fe<sup>26</sup> Plus Traditional Adjustable Railing Panels

- Rake the panel back to 90° and lay on a flat surface.
- Using a metal cutting blade, cut the rail at the four cutting mark locations from previous step. It is advisable to make a practice cut on a scrap piece of rail before proceeding with the finish cuts.
- The distances from the first picket to the ends of the rail, will be different from the top to bottom rail. The greater the angle of the steps the more visible the difference will be. This is required in order to keep balusters pickets parallel to the post.
- File cut edges and coat with 2 coats of Fortress zinc based touch-up paint.









# Installation Instructions for Fortress Fe<sup>26</sup> Plus Railing Traditional Panels with Collar (CB) Brackets and Iron Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company or its distributors shall not be held liable for improper or unsafe installations.

Fortress Iron Posts must always be secured to the deck framing. Fortress Iron Posts should never be attached to only the deck boards.

#### **Note**

When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps will result in rust at the cut areas:

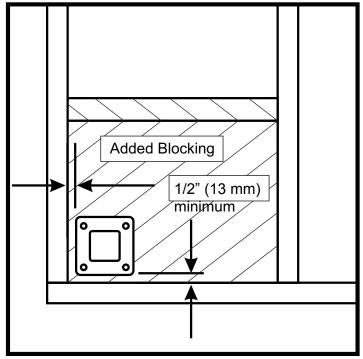
- · Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket to post.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

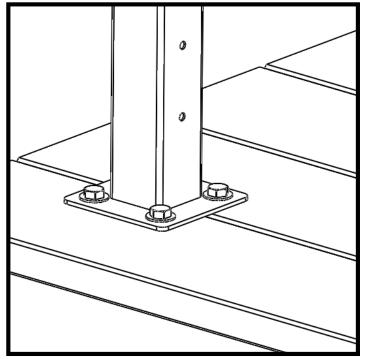
#### **Required Materials**

Drill, 3/16" (5 mm) Drill Bits, T-25 Driver Bit, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3" (76 mm) Support Blocks and Hammer.

#### Mount Iron Posts\*

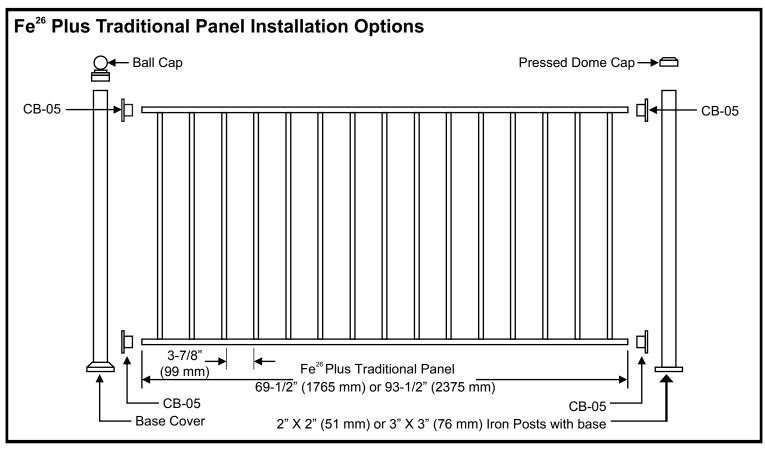
- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1-1/2" (38 mm).
- Position the edge of post base plate a minimum of ½" (13 mm) from the inside edge of rim joist.
- Mount posts at appropriate points based on panel length.
- Attach Iron posts with 3/8" (10 mm) X 3-1/2" (89 mm) Hex Head Galvanized Bolts.

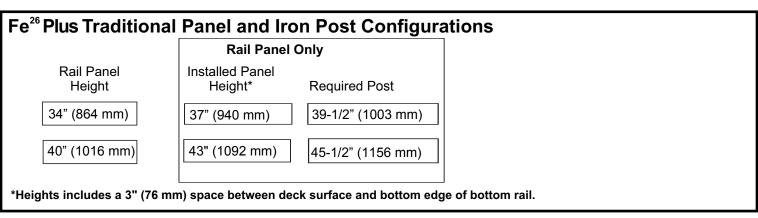


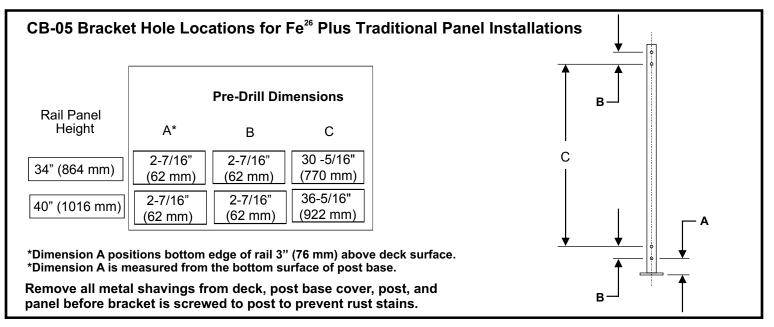


\*Reference Fortress iron post mounting instructions

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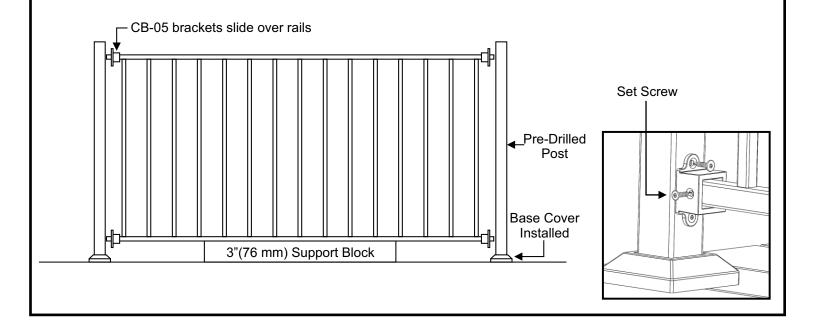






#### Fe<sup>26</sup> Plus Traditional Panel Installation with CB-05

- If rails were cut to length, file cut edges and coat with 2 coats of Fortress zinc based touch-up paint.
- Check fit of rail between installed posts.
- If using a Base Cover install it now by sliding over the top of Iron Post.
- Slide a CB-05 bracket over the end of each rail. Make sure that all set screw holes face the desired direction.
- Place rail assembly on 3" (76 mm) support block between posts.
- Slide CB-05 brackets to post and secure with T-25 Drive Thread Cutting Screws. Use low speed setting on drill.
- Secure rails with provided set screws at each CB-05 bracket.





# Installation Instructions for Fortress Fe<sup>26</sup> Plus Traditional Adjustable Panels with CB Brackets and Fe<sup>26</sup> Posts

It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The deck and railing installer should determine and implement appropriate installation techniques for each installation situation. The Fortress Company nor its distributors shall not be held liable for improper or unsafe installations.

Fortress Fe<sup>26</sup> Posts must always be secured to the deck framing. Fortress Fe<sup>26</sup> Posts should never be attached to only the deck boards.

#### **Read Instructions Completely Before Starting Installation**

#### **Note**

When cutting Fortress railing, it is very important to complete the following at cut points. Not following the below steps will result in rust at the cut areas:

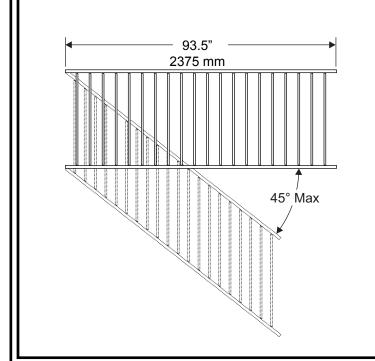
- Remove all metal shavings from the cut area
- File any sharp edges left by cutting. Thoroughly wipe and remove any filings, grime or dirt from the railing.
- Apply two coats of Fortress zinc based touch-up paint to the cut area. If touch up is at rail ends, allow paint to dry before connecting bracket to post.
- Be sure to remove any metal shavings from the surface of deck, patio or balcony to prevent rust on the surface.

#### Required Materials

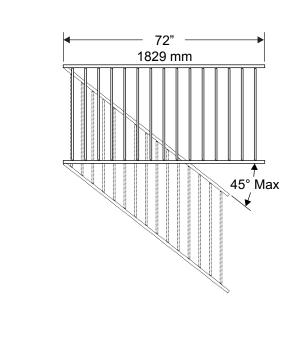
CB-05 Adjustable Bracket, Drill, 3/16" (5 mm) Drill Bit, Phillips Head Screw Driver, T-25 Driver Bit, Metal Cutting Saw, Tape Measure, Wrenches, Pencil, Speed Square, Center Punch, Support Blocks, Clamps and Hammer.

#### Fe<sup>26</sup> Plus Traditional Adjustable Panels

 $Fe^{26}$  Plus Traditional Adjustable Panel 8' (actual length 93.5" or 2375 mm) Available Heights 34" (864 mm) and 40" (1016 mm). Maximum rake angle 45°



Fe<sup>26</sup> Plus Traditional Adjustable Panel 6' (actual length 72" or 1829 mm) Available Heights 34" (864 mm) and 40" (1016 mm). Maximum rake angle 45°

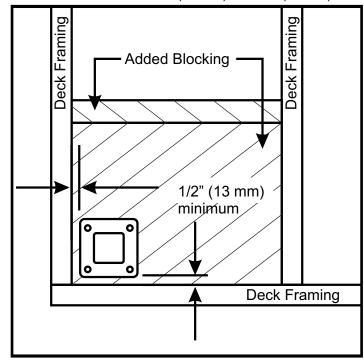


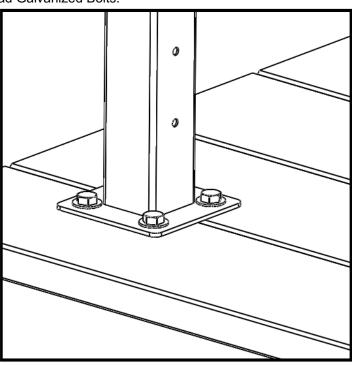
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Important - Every stair installation will be different. The rise and run, post position, and post height all need to be carefully laid out before posts are permanently installed and Fortress Fe<sup>26</sup> Plus Traditional Adjustable panels are cut.

#### Mount Fe<sup>26</sup> Posts\*

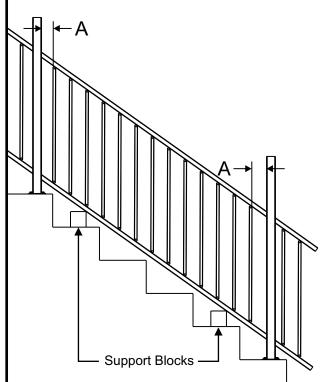
- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1-1/2" (38 mm).
- Position the edge of Fe<sup>26</sup> Post base plate a minimum of ½" (13 mm) from the inside edge of rim joist.
- Mount Fe<sup>26</sup> Posts at appropriate points based on panel length.
- Attach Fe<sup>26</sup> Posts with 3/8" (10 mm) X 3-1/2" (89 mm) Hex Head Galvanized Bolts.





\*Reference Fortress Fe<sup>26</sup> Post mounting instructions

#### **Determine Rake and Center Panel Between Posts**



Use Fe<sup>26</sup> Plus Adjustable Panel to determine the angle of stair installation. To do this use support blocks resting on the stair tread. Position support blocks so that the position of the bottom rail meets the spacing requirement of your building code.

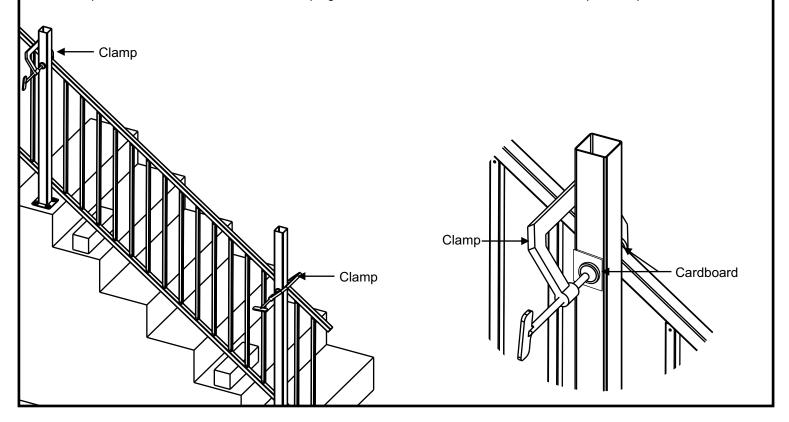
Rake the panel so that the balusters run parallel with the posts. Center the balusters so that there is a equal amount of rail between the post and baluster at each end (Dimension A).

Make sure that there is enough clearance between the post and first picket to allow for the bracket.

Mark location of support blocks.

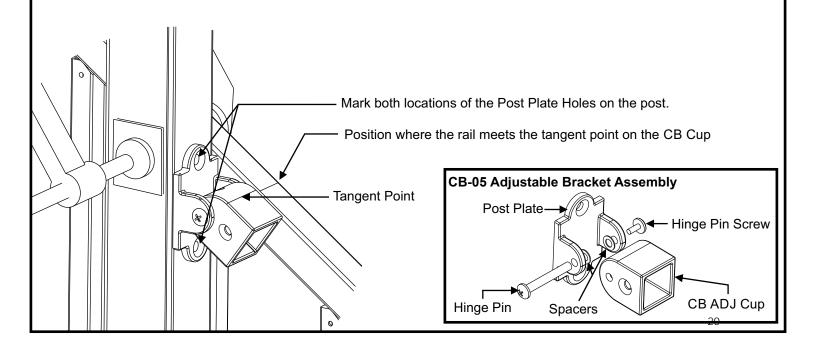
#### **Verify Panel Position and Secure with Clamps**

- Verify the position of the panel. With the help of another person, secure the panel into the correct position and secure with clamps at each end of panel.
- · Place a piece of cardboard between the clamping surfaces and the surfaces of the rails and posts to protect the finish.



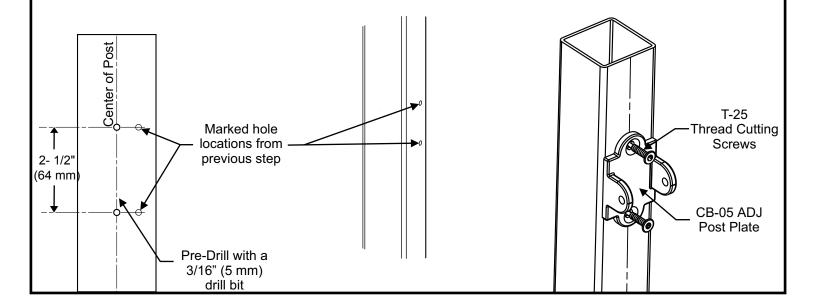
#### **Mark Rail Length**

- Place CB-05 ADJ bracket against post and position the cup so that it is parallel to the rail. With a pencil mark the position where the rail meets the tangent point of the CB Cup on the top of the rail. With bracket in the same position mark the hole locations of the Post Plate on the post. **DO NOT DRILL HOLES AT THIS TIME**.
- Repeat this step for all four CB-05 ADJ Locations.



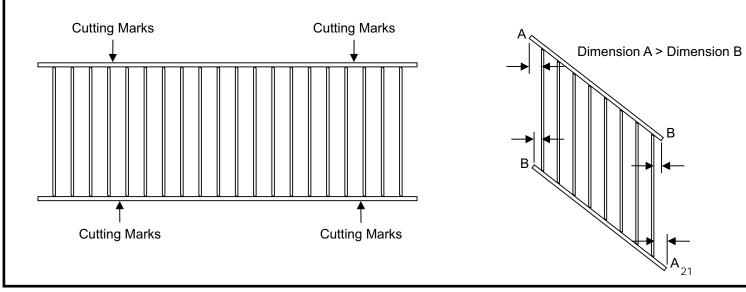
#### **Pre-Drill and Install CB Adjustable Bracket Post Plates**

- Remove c-clamps and panels.
- Mark the centerline of each post. The CB-05 ADJ will be installed on the centerline, not the locations marked in the previous step.
- Use a center punch to mark the hole locations and pre-drill all bracket hole locations.
- Remove Hinge Pin from CB-05 ADJ Assemblies.
- Attach CB-05 ADJ Post Plates to post with supplied T-25 Drive Thread Cutting screws.
- Reassemble CB-05 ADJ Assemblies with Hinge Pins
- Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post to prevent rust stains.



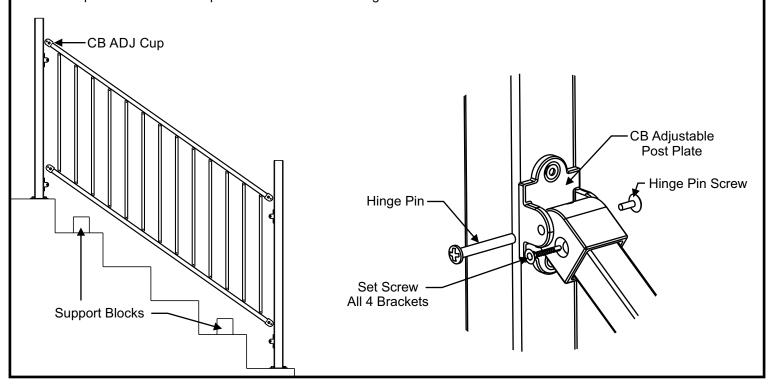
#### Cutting Fortress Fe<sup>26</sup> Plus Traditional Adjustable Railing Panels

- Rake the panel back to 90° and lay on a flat surface.
- Using a metal cutting blade, cut the rail at the four cutting mark locations from previous step. It is advisable to make a practice cut on a scrap piece of rail before proceeding with the finish cuts.
- The distances from the first picket to the ends of the rail, will be different from the top to bottom rail. The greater the angle of the steps the more visible the difference will be. This is required in order to keep balusters pickets parallel to the post.
- File cut edges and coat with 2 coats of Fortress zinc based touch-up paint.



#### **Install Panel**

- Reposition support blocks.
- Place the CB-05 ADJ Cups over the ends of rails. DO NOT INSTALL SET SCREWS AT THIS TIME.
- Position panel with CB-05 ADJ Cups into installed CB-05 ADJ Post Plates. Secure with Hinge Pins.
- Check the fit of the panel and make any required adjustments.
- Secure panel to bracket with provided T25 Thread Cutting screw installed into each bracket.



#### **Install CB Spacers**

- After Fortress Fe<sup>26</sup> Plus Adjustable Panel has been installed, check the fit of the panel in the brackets.
- If there is noticeable rattle between the CB ADJ Cup and the CB ADJ Post Plate install the included spacers between the CB ADJ Cup and CB ADJ Post Plate.
- To install spacers remove the hinge pin, add the required spacers and replace the hinge pin.

