



Installation Instructions for Avant Aluminum Panels with Angle Aluminum Brackets and Aluminum 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. Menards® shall not be held liable for improper or unsafe installations.

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

Read Instructions Completely Before Starting Installation

Note

When cutting Avant Railing, it is very important to complete the following at cut points. Not following the below steps will result in corrosion 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.
- Be sure to remove any metal shavings from the surface of deck, patio, or balcony to prevent rust on the surface.

Torx Bits Tips

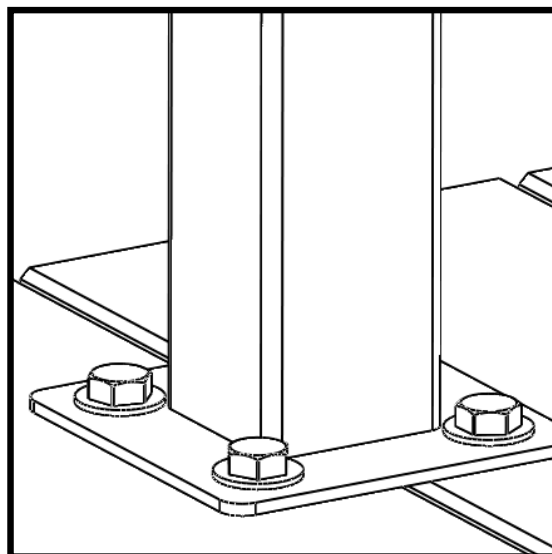
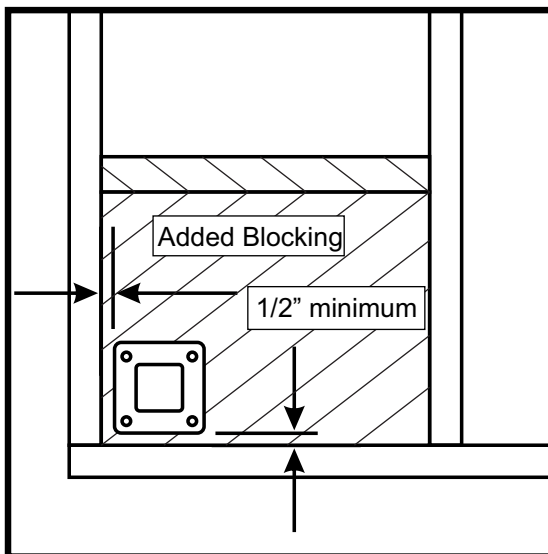
- Have several bits on hand before starting your installation.
- Always pre-drill holes with a 3/16" drill bit.
- Use the lowest possible torque setting on drill. This will help to minimize breakage and twisting of Torx Bits.

Required Materials

Drill, 3/16 Drill Bit, T-25 Driver Bit, Drill Bit Extender, Tape Measure, 2.5mm Allen Wrench, Wrenches, Speed Square, Center Punch, Eye Protection, Hammer

Mount Aluminum Posts

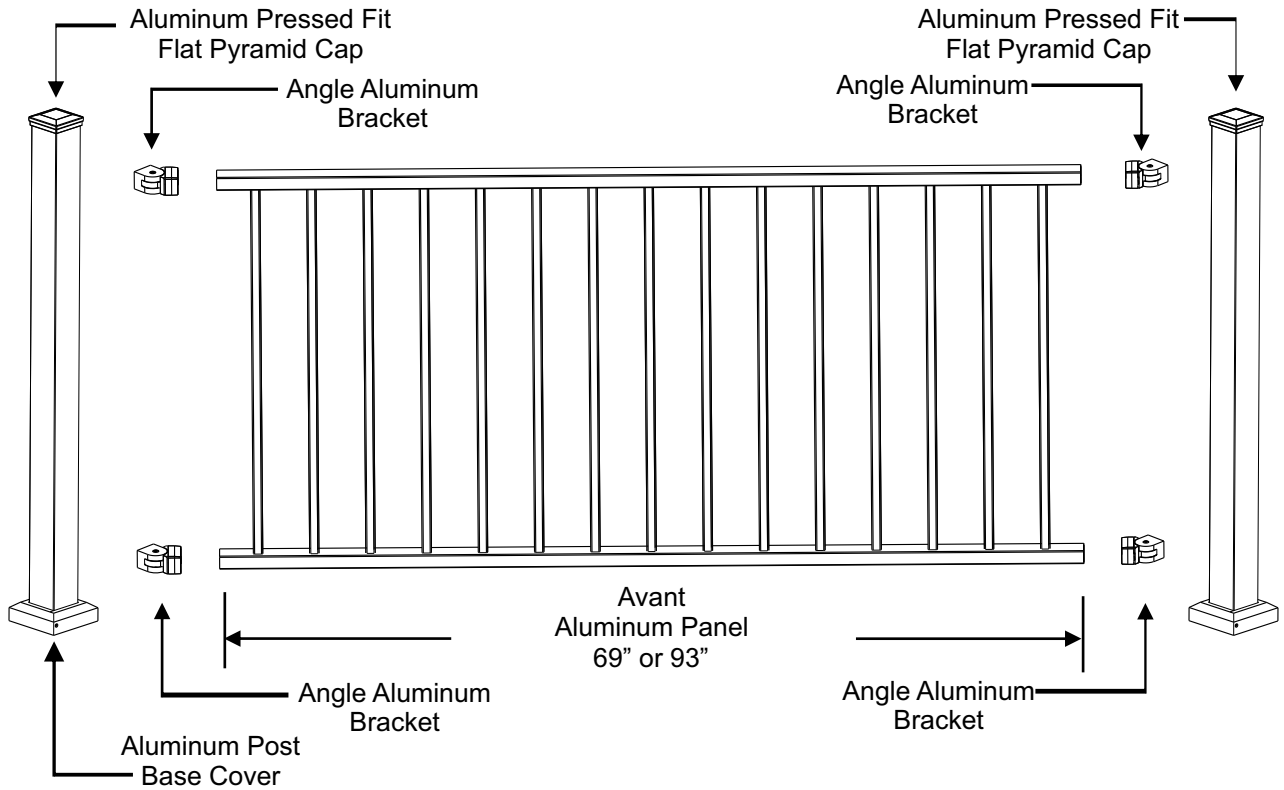
- Wood Blocking tied to deck frame must be installed and constructed with treated dimensional lumber with a minimum thickness of 1/1/2".
- Position the edge of aluminum post base plate a minimum of 1/2" from the inside edge of rim joist.
- Mount Aluminum Posts at appropriate points based on panel length.
- Attach Aluminum Posts with 3/8 X 3-1/2" Hex Head Galvanized Bolts.



For technical assistance, please email: avant@fortressrailing.com
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Avant Aluminum Panel Angle Installation Options



Avant Panel and Aluminum Post Configurations

Avant Panel Height

| |
|---------|
| 32-1/2" |
| 38-1/2" |

Avant Panel Only

Installed Panel Height* Required Post

| | |
|-----|---------|
| 36" | 39-1/2" |
| 42" | 43-1/2" |

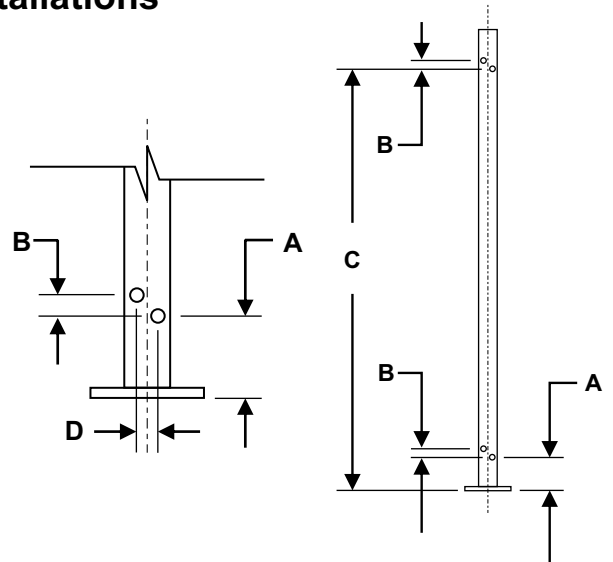
*Installed heights include a 3-1/2" space between deck surface and bottom edge of bottom rail.

Angle Bracket Hole Locations for Avant Panel Installations

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

Pre-Drill Dimensions

| Panel Height | A* | B | C | D |
|--------------|----------|------|----------|--------|
| 32-1/2" | 3-15/16" | 1/2" | 35-1/32" | 11/16" |
| 38-1/2" | 3-15/16" | 1/2" | 41-1/32" | 11/16" |



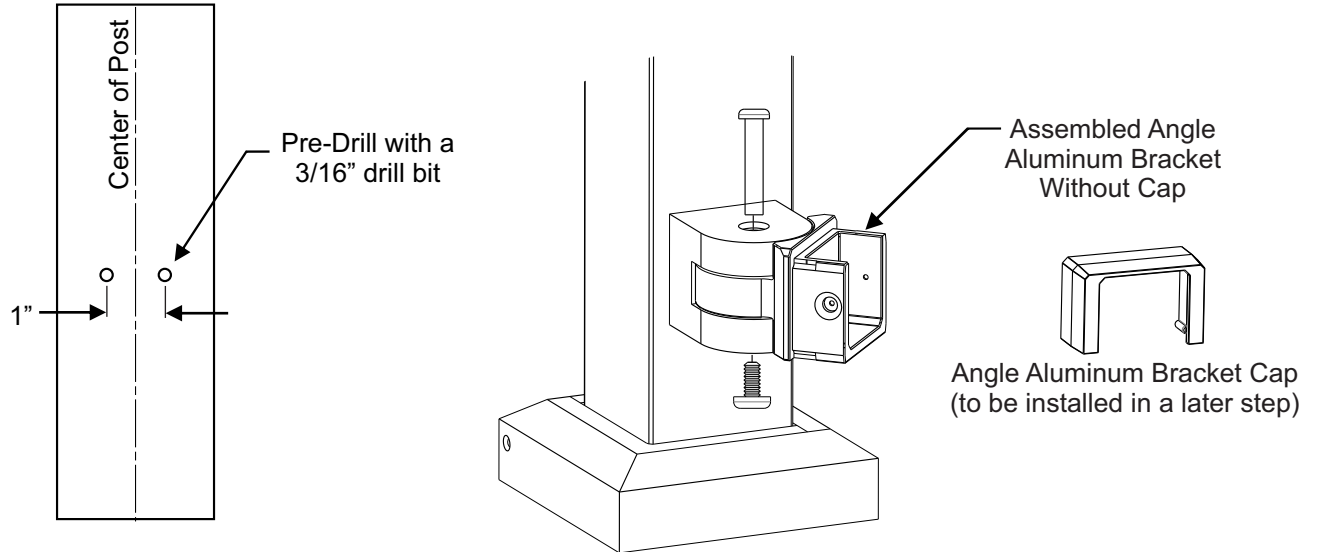
*Dimension A positions bottom edge of rail 3-1/2" above deck surface.

*Dimension A is measured from the bottom surface of post base.

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

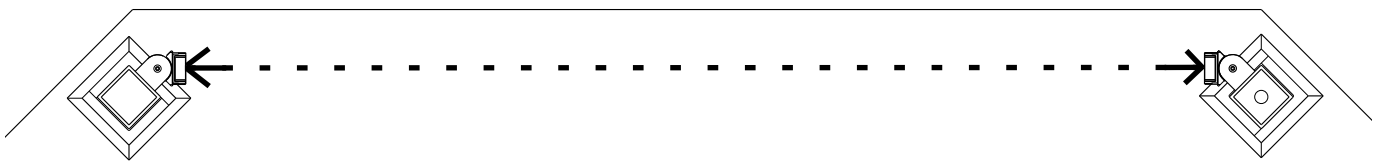
Pre-Drill and Install Angle Aluminum Brackets to Aluminum Posts

- Install Post Base Cover by sliding over the top of Aluminum Post.
- Mark the centerline of each post with a pencil.
- Mark hole locations defined in the previous step with a pencil, then pre-drill with a 3/16" drill bit, ensuring that the holes are spaced evenly from the centerline.
- Remove the bolt from the Angle Aluminum Bracket Assembly.
- Attach Angle Aluminum Bracket Base piece to the posts with supplied T-25 thread-cutting screws. Use two screws per bracket. Use low speed setting on drill. The side of the base with two holes should be facing downwards.
- Reassemble the Angle Aluminum Brackets, but **do not install the Angle Aluminum Bracket Cap at this time.**
- **Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post.**



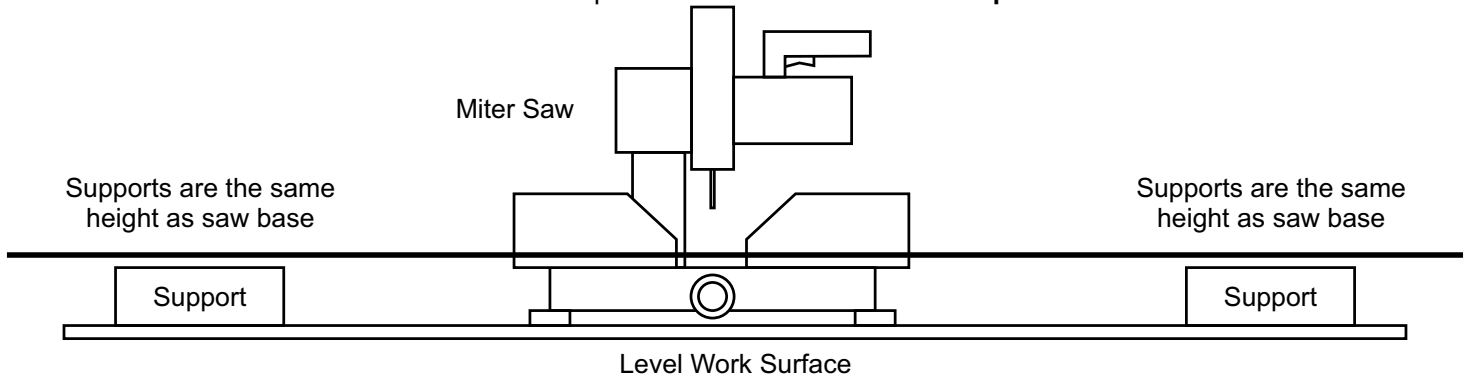
Determine Panel Length

- Check to ensure that all posts are square and straight. Shim posts as required.
- Ensure that the Angle Bracket Cups are approximately aligned.
- With another person's help, measure the distance from the inside back of one cup to the inside back of the other cup. This will be the panel length.
- Mark the panel such that equal lengths will be cut off each side to shorten it to the desired panel length.
- Before cutting, note that the minimum distance between the end of the rail and the end baluster is 1", and the maximum distance between post and baluster is 3-15/16".



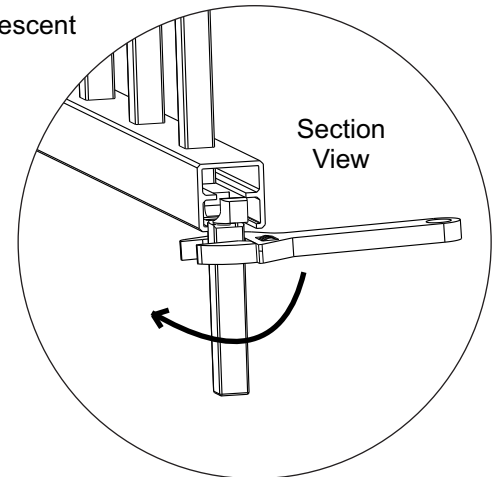
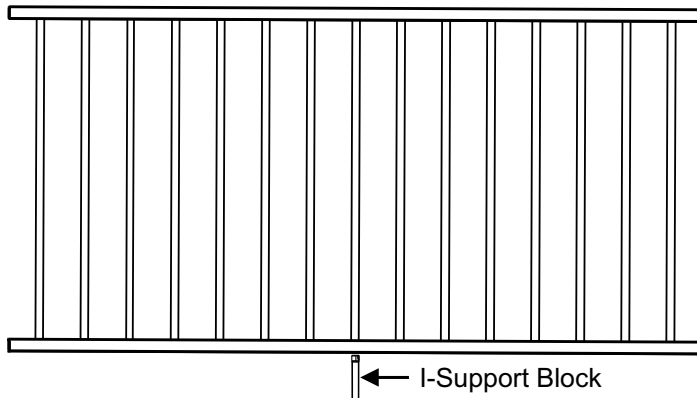
Cutting Avant Aluminum Panels

- The best way to cut Avant Aluminum Panels is to use a miter saw.
- A fine tooth carbide tipped blade designed to cut non-ferrous materials is recommended.
- Set up a work surface that is level and large enough to support all four corners of the Avant Aluminum Panel.
- Supports should be the same height as saw base to keep Avant Aluminum Panel straight and level when cutting.
- With panels completely supported, make cuts at the marked locations from previous step.
- Remove any burrs or shavings from cut edges. File cut edges.
- Check the fit of Avant Aluminum Panel between posts. **Be careful not to scratch posts with end cuts.**



I-Support Installation

- Mark the center of the Avant Panel Bottom Rail.
- Position I-Support Block near center of the Avant Panel Bottom Rail
- Insert I-Support Block into the bottom center of rail and twist to secure. Using a crescent wrench (with padding to avoid scratching the support block) is recommended.



Avant Aluminum Panel Installation with Angle Aluminum Brackets

- Drop Avant Aluminum Panel into installed Angle Aluminum Bracket Cups. Tighten the set screw in the bottom of the brackets.
- Secure rails with provided T25 thread-cutting screws at each Angle bracket. **Only one screw should be used per bracket.**
- Install Angle Aluminum Bracket Caps by sliding the cap over the Angle Aluminum Bracket Cup. Cap will snap into place.
- Pre-drill hole and secure I-Support to ground with supplied screw.

