



# Installation Instructions for Avant Aluminum Adjustable Panels with Stair 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 corrosion on the surface.

### Required Materials

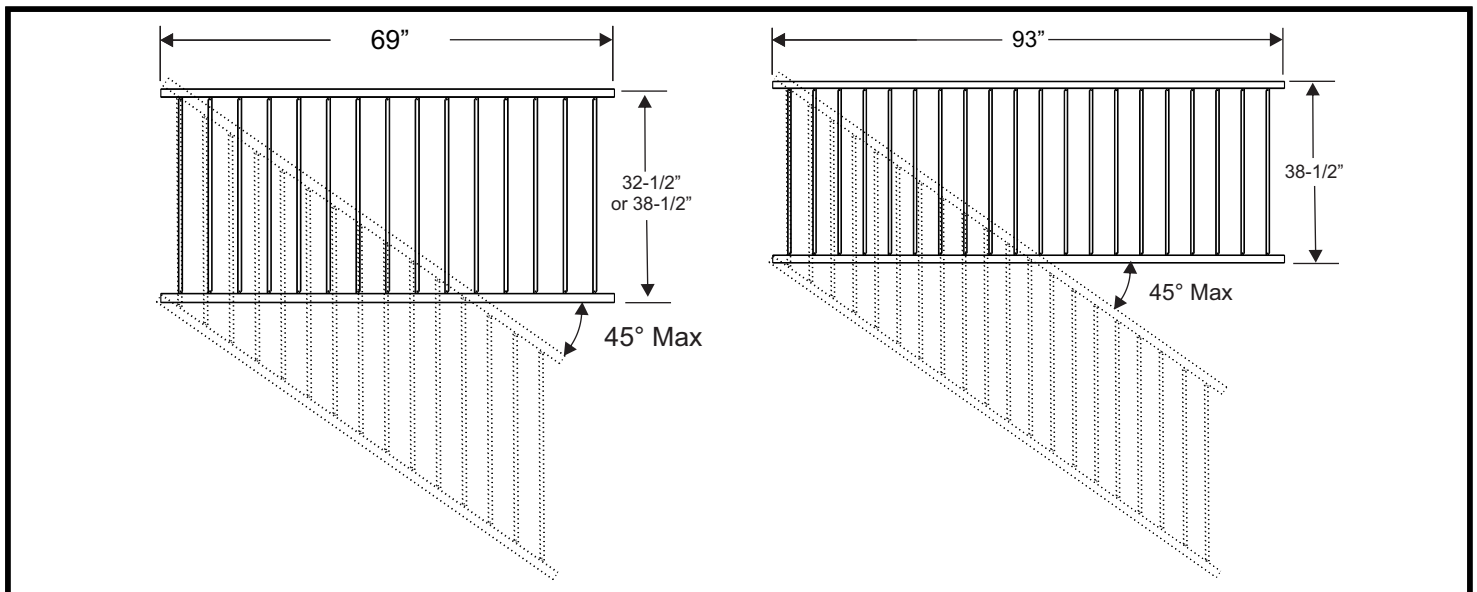
Miter saw with fine tooth blade, Drill, 1/16" and 3/16" Drill Bits, T-25 Torx Driver Bits, Phillip's Head Screwdrivers, Drill Bit Extender, Tape Measure, Wrenches, Speed Square, Center Punch, 3-1/2" Support Blocks, Clamps, Hammer, Pencil and Eye Protection .

### 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.

### Avant Aluminum Adjustable Panel

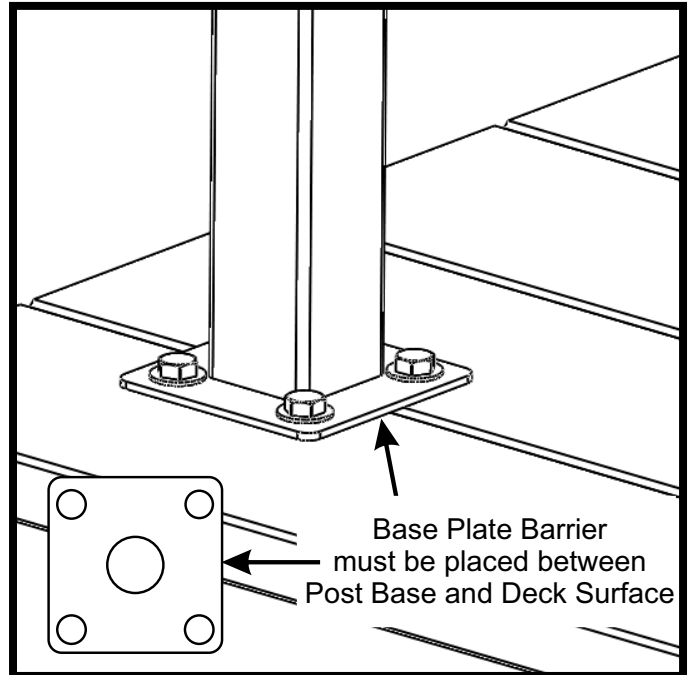
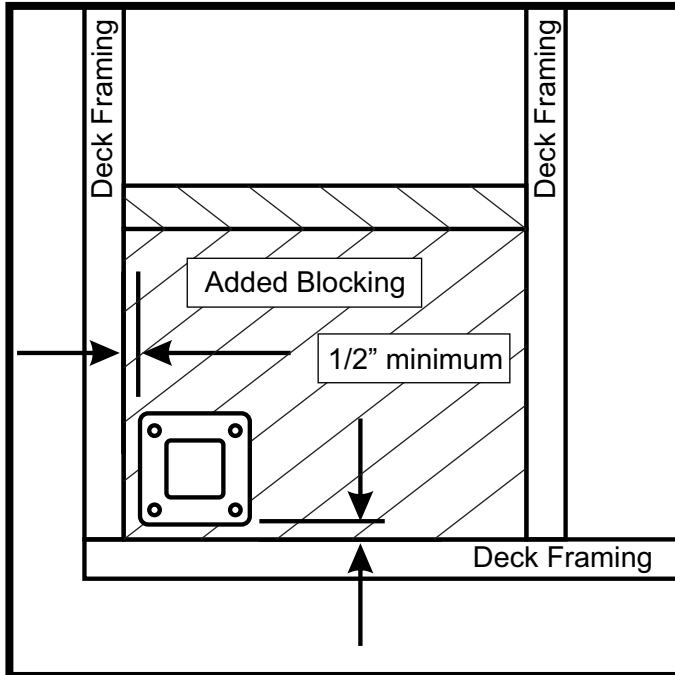
Avant Aluminum Adjustable Panels are available in the following sizes:  
32-1/2" X 6' (actual length 69"), 38-1/2" X 6' (actual length 69") and 38-1/2" X 8' (actual length 93")  
Maximum rake angle 45°



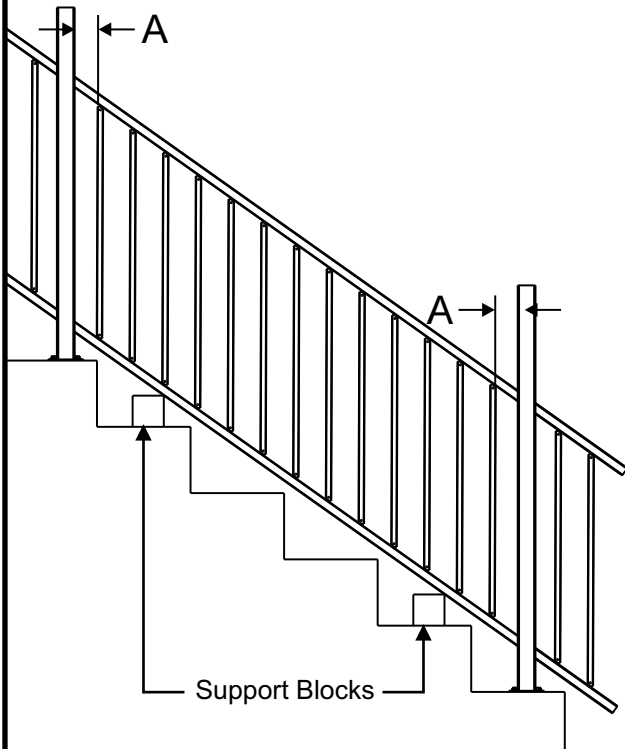
**Important - Every stair installation will be different. The rise and run, post position, and post height all need to be carefully laid out before posts are permanently installed and Avant Aluminum Adjustable Panels are cut.**

## 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 post base plate a minimum of 1/2" from the inside edge of rim joist.
- Place included Base Plate Barrier between post base and deck surface.
- Mount posts at appropriate points based on panel length.
- Attach Aluminum Posts with 3/8 X 3-1/2" Hex Head galvanized bolts.



## Determine Rake and Center Avant Aluminum Adjustable Panel Between Aluminum Posts



Use Avant Aluminum 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.

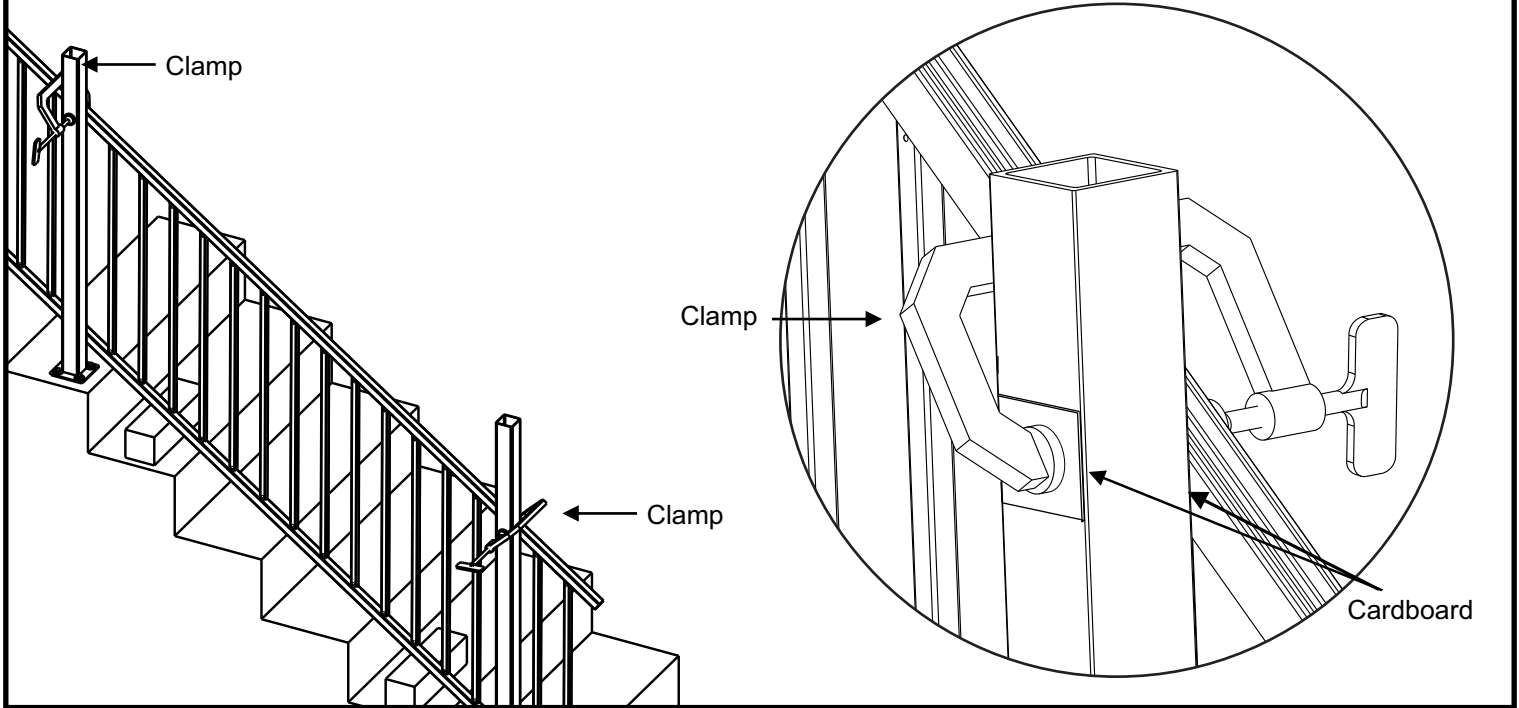
Rake the Avant Aluminum Adjustable Panel so that the balusters run parallel with the posts. Center the balusters so that there is an equal amount of rail between the post and baluster at each end (Dimension A).

Make sure that there is a minimum distance of 2-1/2" between the post and first baluster to allow space for the bracket. The maximum allowable distance between the post and the first baluster is 3-15/16".

Mark location of support blocks on steps. Support Blocks will be used in a later step.

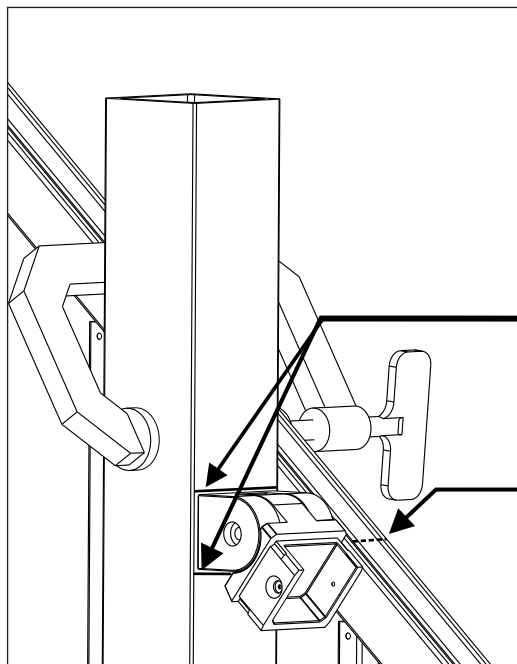
## Verify Avant Aluminum Adjustable Panel Position and Secure with Clamps

- Verify the position of the Avant Aluminum Adjustable Panel. With the help of another person, place the panel into the correct position and secure with clamps to the aluminum posts.
- Place a piece of cardboard between the clamping surfaces and the surfaces of the rails and posts to protect the finish.



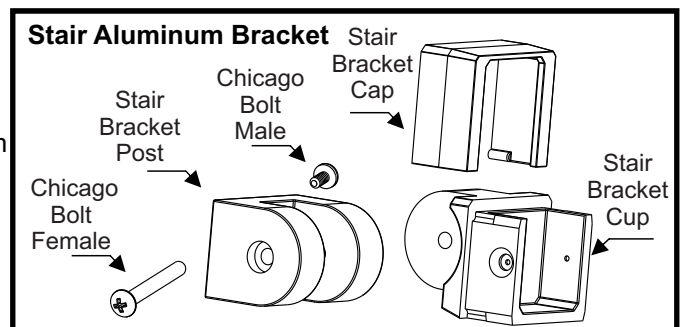
## Determine Stair Aluminum Bracket Assembly Location and Mark Rail

- **Do not install the Stair Aluminum Bracket Cap at this time.**
- Place the Stair Aluminum Bracket Assembly against the Aluminum Post and position the Stair Aluminum Bracket Cup so that it is parallel to the rail. With a pencil mark the position on the top of the rail where the rail meets the back wall of the Stair Aluminum Bracket Cup. With the Stair Aluminum Bracket in the same position, mark a horizontal line on the post right above and below the Stair Aluminum Bracket.
- Repeat this step for all four Stair Aluminum Bracket locations. In the next step, the Stair Aluminum Bracket Assembly will be disassembled and placed between these lines so that hole locations can be marked and drilled.



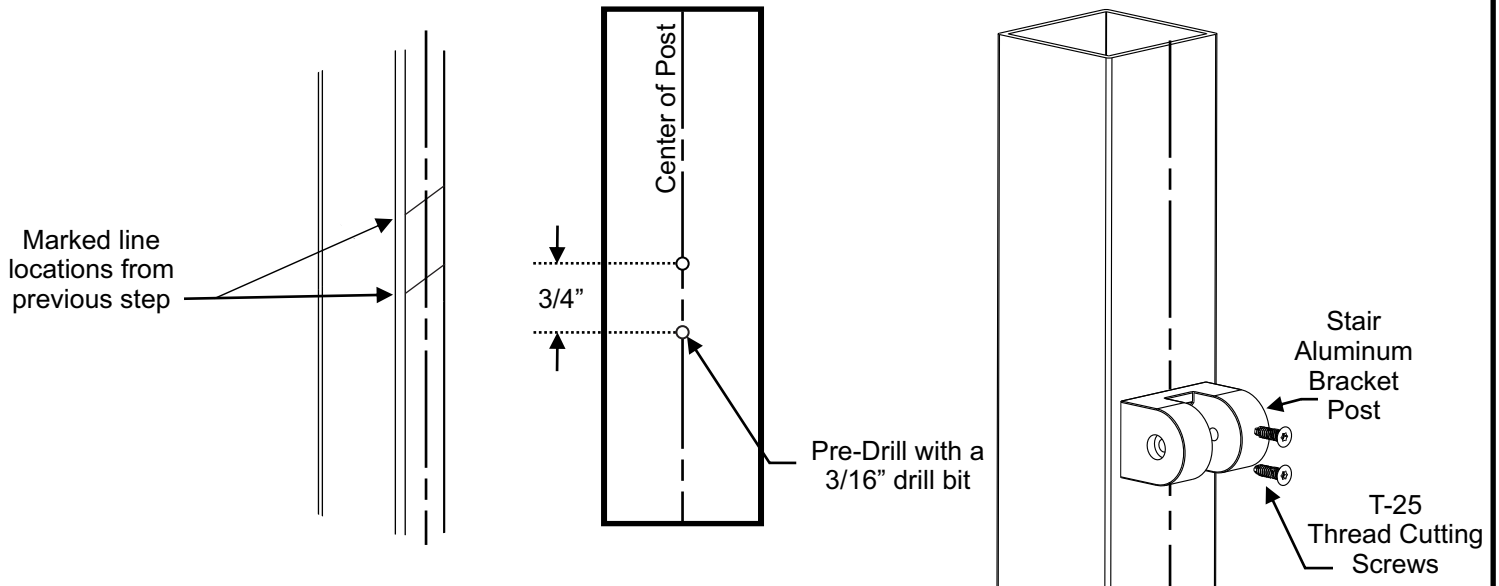
Mark top and bottom location of Stair Aluminum Bracket on post

Position where the rail meets the back wall of Stair Aluminum Bracket Cup



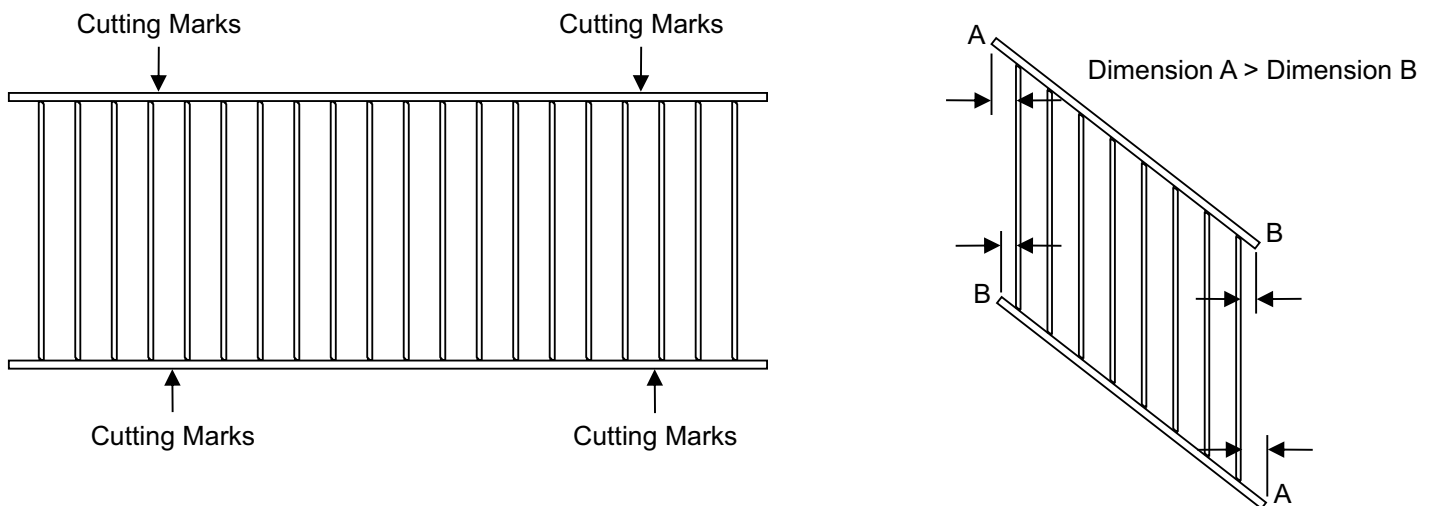
## Pre-Drill and Install Stair Aluminum Brackets to Aluminum Posts

- Remove clamps and Avant Aluminum Adjustable Panel.
- Mark the centerline of each post. The Stair Aluminum Brackets will be installed on the centerline.
- Remove bolt from the Stair Aluminum Bracket Assembly.
- Place the Stair Aluminum Bracket Post piece between the two lines drawn in the previous step and center it on the post.
- Use a 3/16" drill bit to pre-drill holes.
- Attach all Stair Aluminum Bracket Post pieces to the Aluminum Posts with supplied T-25 thread cutting screws.
- Reinstall Stair Aluminum Bracket Cup to Stair Aluminum Bracket Post with supplied bolt.
- **Remove all metal shavings from deck, post base cover, post, and panel before bracket is screwed to post.**



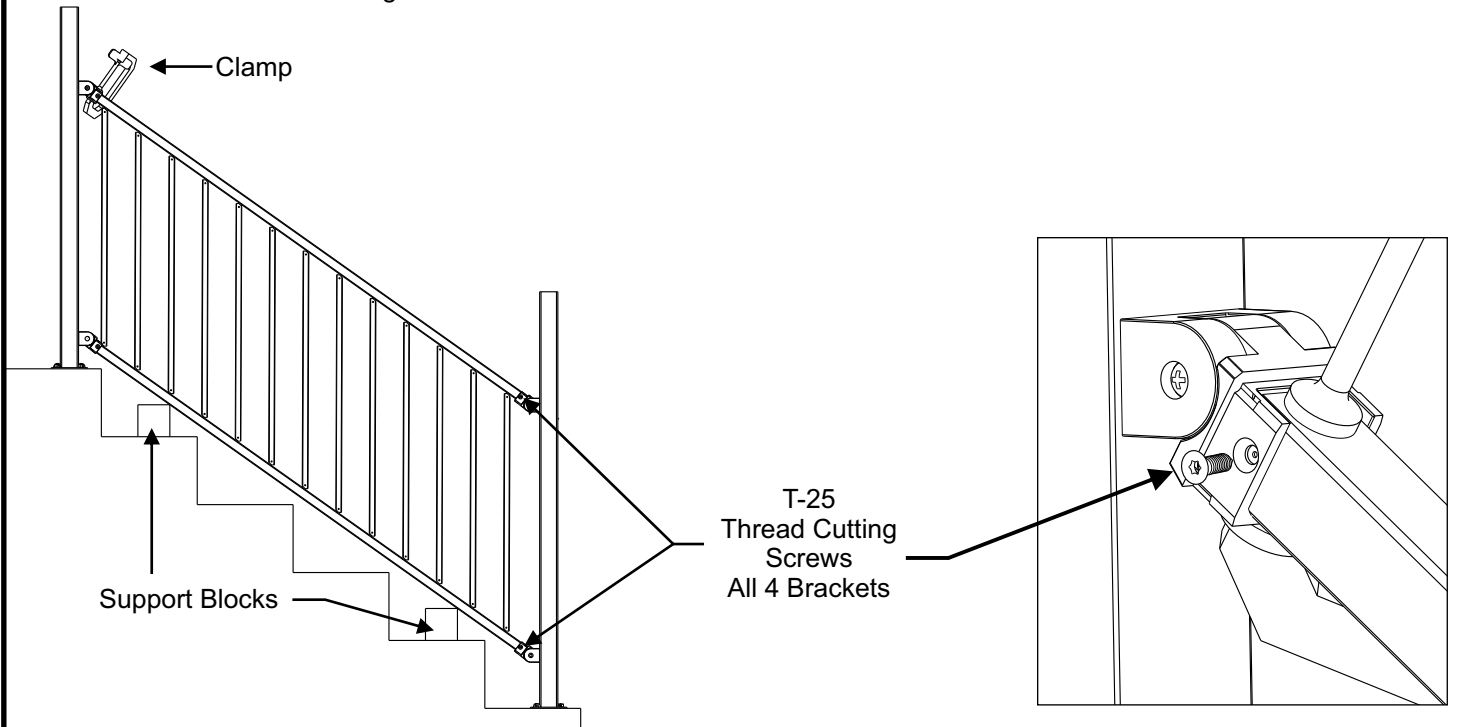
## Cutting Avant Adjustable Aluminum Panels

- 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 baluster 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 panel's balusters parallel to the post.**
- File all cut edges.



## Install Avant Aluminum Adjustable Panel

- Reposition support blocks.
- Position Avant Aluminum Adjustable Panel so that it aligns with the Stair Aluminum Brackets. Use a clamp to hold the Avant Aluminum Adjustable Panel in place.
- Check the fit of the Avant Aluminum Adjustable Panel and make any required adjustments.
- Pre-drill Avant Aluminum Adjustable Panel with a 3/16" drill bit, then secure to Stair Aluminum Bracket with a T-25 thread cutting screw.



## Install Stair Aluminum Bracket Caps

- Remove clamps, then install Stair Aluminum Bracket Caps by snapping the Stair Aluminum Bracket Cap into place.

