

# 3form® RAIL ALUMINUM

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3form® rail provides a clean, efficient, and thoroughly engineered solution for a number of railing applications including balconies, ramps, and stairways. It can be field installed easily and quickly. Best of all, it showcases the beauty and versatility of Varia™.



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For more information, please visit [www.3form.eu](http://www.3form.eu) or email [info@3form.eu](mailto:info@3form.eu) or call +31 (0) 88 336 576 00

JANUARY 15<sup>TH</sup> 3form BV, All rights reserved

## Guardrail Overview

### DETAIL YOUR PLAN VIEW AND ELEVATION

In your plan drawings, indicate location, turns, and post spacing. In elevation, please indicate desired method of attachment, base mount or side mount. If the guardrail is to be used along a stairway or ramp show the proposed height, any landing transitions, as well as the stair pitch or ramp slope.

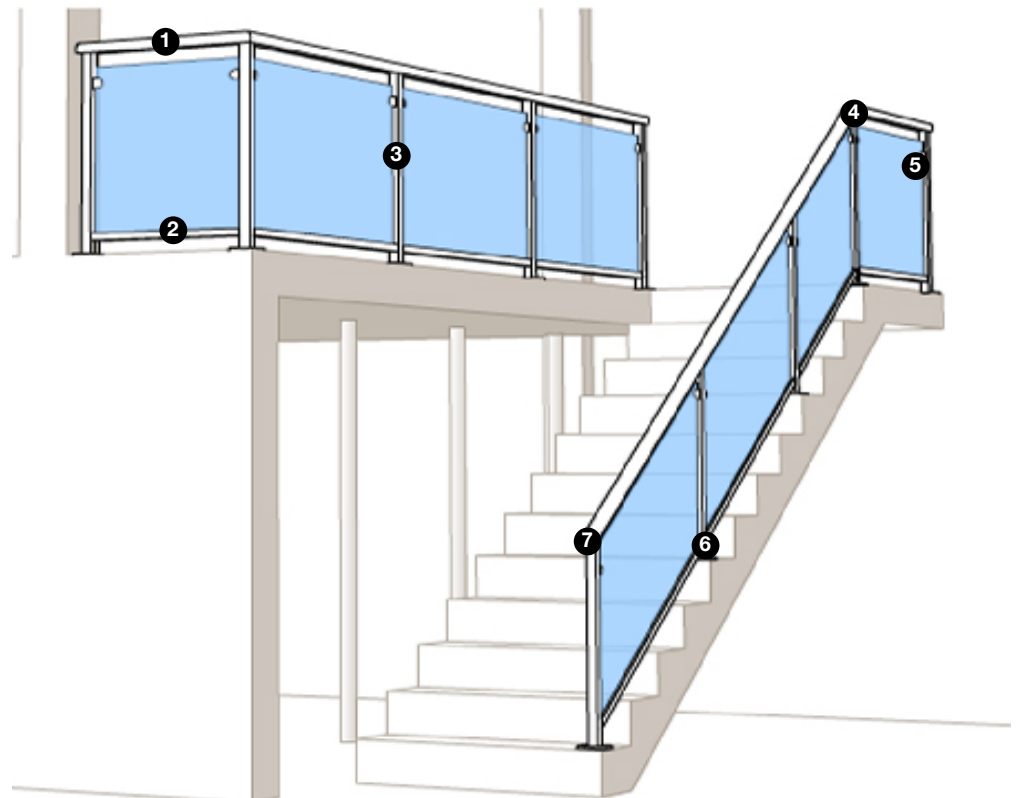
### CHOOSE YOUR DESIRED RAILING HEIGHT

There are 2 different height options; 914 mm (36") and 1067 mm (42"), which are generally used for either residential or commercial specific applications respectively.

### CHOOSE YOUR DESIRED VARIA OR CHROMA MATERIAL.

Most Varia panels available in 10 mm (3/8") and 12 mm (1/2") may be used with 3form Rail. Chroma is available in 10 mm (3/8") and 12 mm (1/2") as a custom order.

1. Top Rail Profile
2. Bottom Rail Profile
3. Post Sizes
4. Rail Transitions
5. Panel Clip
6. Mounting Conditions
7. End Conditions

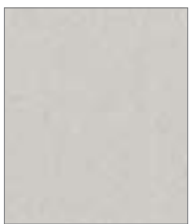


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## CHOOSE YOUR DESIRED FINISH AND TOPRAIL SHAPE

3form offers two standard top rail shapes in a variety of finishes to suit your design intent. These can be combined with a selection of post sizes. Not all combinations are available in all configurations.

Standard color options are listed below. The silversmith color is a coating that appears very close to a natural satin anodized aluminum. The wood finishes are a vinyl coating that covers the aluminum top rail only. Additional colors may be available upon request.



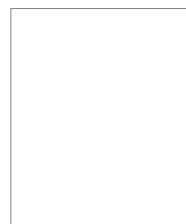
SILVERSMITH



BLACK



BRONZE



WHITE



SILVER GREY



CHERRY



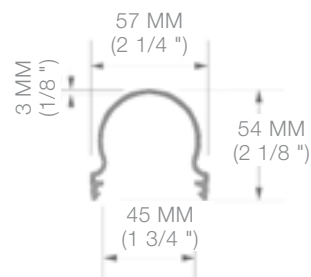
CLEAR FIR

## Toprail profiles with dimensions.

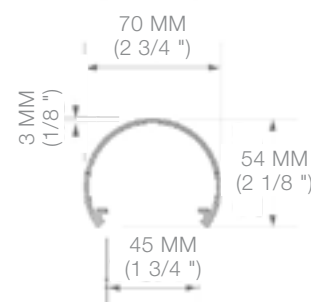
The traditional Small Round and the elegant Large Round top rail profiles provide choices to fit the needs of your project.



SMALL TOPRAIL

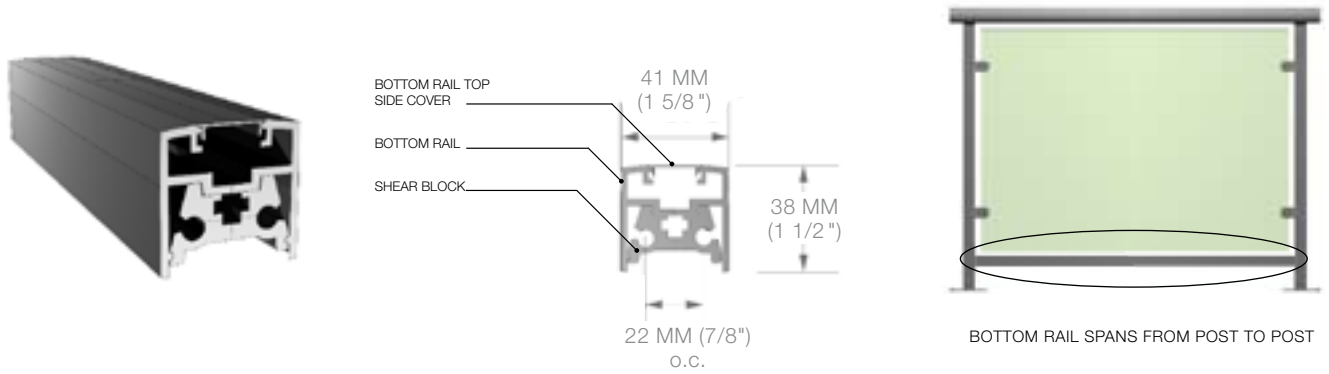


LARGE TOPRAIL



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## BOTTOM RAIL PROFILE



## SELECT POST SIZES

Two post sizes are available, a 45 mm (1 3/4") post and a 64 mm (2 1/2"). Specific wind load requirements and relative sizes of the posts to the rails may also dictate the size of post required for your installation.



## POST & RAIL CONFIGURATIONS

Below are configurations of different post and rail configurations, so you may see how each combination may be used and its compatibility with various installation requirements.



**SMALL TOPRAIL W/ 45 MM (1 3/4") POST**  
 STRAIGHT RUNS: OK  
 ELEVATION CHANGE: NO  
 CORNER: OK

**SMALL TOPRAIL W/ 64 MM (2 1/2") POST**  
 STRAIGHT RUNS: OK  
 ELEVATION CHANGE: OK  
 CORNER: OK

**LARGE TOPRAIL W/ 45 MM (1 3/4") POST**  
 STRAIGHT RUNS: OK  
 ELEVATION CHANGE: NO  
 CORNER: OK

## TOP RAIL ABUTTING POSTS

- The Small top rail is the only top rail that can abut the 64 mm (2 1/2") posts.
- This type of condition will be used on stair runs and transitions, as shown.
- This is also available on straight runs if desired.

## TOP RAIL PASSING OVER THE TOP OF POSTS

- Both the Small top rail and Large top rail can pass over the top of 45 mm (1 3/4") posts.
- The 64 mm (2 1/2") posts cannot be used in this condition.

## DETERMINE POST SPACING

To optimize panel utilization, it is recommended that the full 1220 mm (48") width of a finished panel be specified. Spacing from the edge of the panel to the side of the post is 22 mm (7/8"). Therefore, post spacing, center on center, should be:

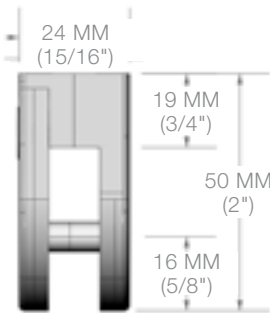
post spacing = width of post + 2 x 22 mm + width of panel

example (45 mm post): 1309 mm post spacing = 45 mm + 22 mm + 22 mm + 1220 mm

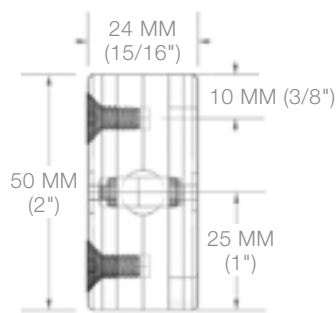
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## PANEL CLIP

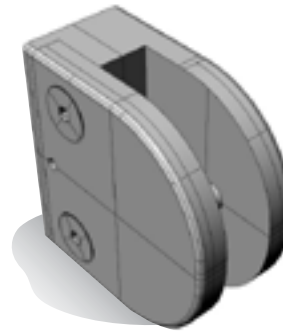
Four panel clips are used per panel 10 mm (3/8") and 12 mm (1/2") mm



TOP VIEW



FRONT VIEW



PERSPECTIVE

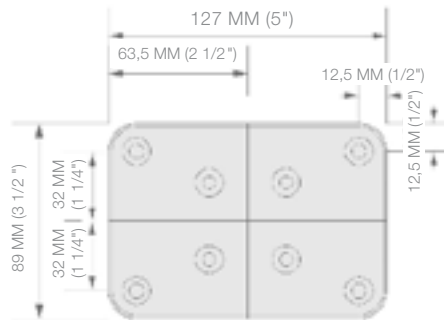
## MOUNTING CONDITIONS:

### BASE MOUNT

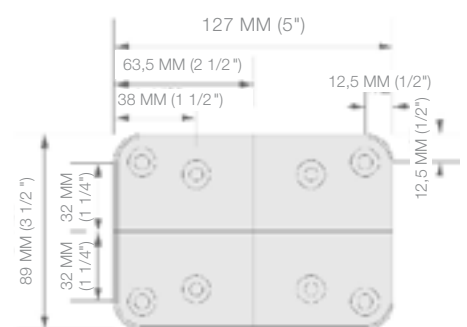
- Base mount rails are fastened to the top deck surface.
- Fasteners are not included in quotes.
- Custom angles may be specified.



BASE MOUNT OPTION



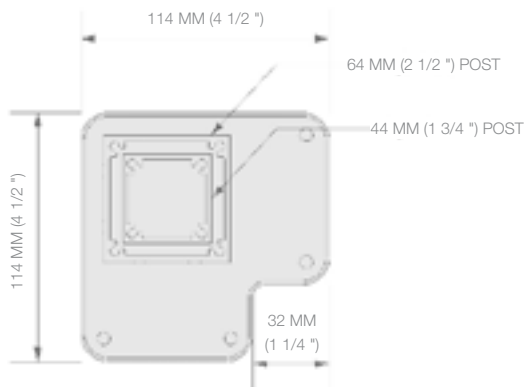
45 MM (1 3/4") BASEPLATE



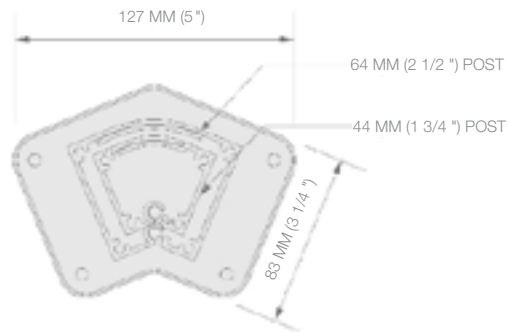
64 MM (2 1/2") BASEPLATE



## BASE MOUNT CONTINUED



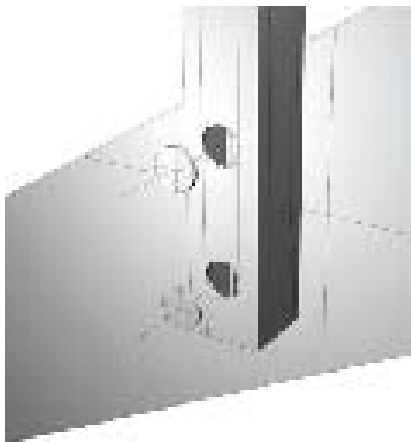
**CORNER/TRANSITION**



**CUSTOM ANGLE**

## SIDE MOUNT

- Side mount posts are fastened to the face surface of decking, or stair stringers.
- Fasteners are not included in quotes.
- Fastener spacing on posts vary.



## END CONDITIONS

- When Top rails are passing over the top of posts, a cap will be fastened to the open ends.
- These match the profiles of both Large and Small top rails.
- When top rails abut posts, no cap is needed.



END CAPS MATCH PROFILE OF TOP RAIL



STAIR TRANSITION

## SUBMIT INFORMATION FOR QUOTE

Please submit detailed drawings, post and rail preferences, post spacing information, and desired color to your 3form rep. Quotes can generally be turned around in 7-10 days depending on complexity of the installation and adequate provision of information presented in this section.

## Design Parameters

The 3form guardrail is a simple yet effective way to provide a complete railing solution. The guardrail can be adapted to countless installation conditions and design intents. To maximize the cost performance of the railing please keep in mind the following design parameters.

- Optimal modules for railing components should add up to their stock 3050 mm or 6100 mm (10' or 20') increments.
- Optimal modules for Varia panel usage are 1220 mm or 1524 mm (48" or 60") in panel material (post spacing will be 75–100 mm more, depending on post type selected) depending on if a directional texture is specified.
- Stock angles are 90 degrees and 135 degrees, any custom angle will add extra cost to run of the railing.
- Angles up to 5 degrees from horizontal on base plates may use stock material. Any angle greater than 5 degrees must be custom fabricated.
- Landing transitions generally require the use of the 64 mm (2 1/2") square post for abutting the top rail and directing the rail down any stairs. This interrupt is necessary for ease of installation and finish tolerances.
- Certain conditions may require a separate or additional hand/grab rail.
- When using a 1220 mm (48") wide panel and the post spacing as indicated above, 4 mounting clips should be specified for each panel section, 2 along each side.