



# Polyurethane Balustrade

## Installation Instructions

NOTE: Decoro offers the option to factory pre-assemble the rail sections, which substantially reduces installation time. If the balustrade is pre-assembled, steps 11-7 can be disregarded.

### Preparation & Installation

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1. Determine the exact layout of the newel posts and mark the center location of each post.
  - If determining newel post layout for the first time, use 12' as a maximum railing length and keep railing lengths equal where possible.
2. Fasten the top angle bracket to the newel post, following the instructions below:
  - Determine the height at which the bottom rail will be secured to the newel post, and make a mark on the newel post at this point (the gap between the floor and the bottom rail is typically about 3 inches, and no more than 4 inches).
  - Measure the combined height of the bottom rail and baluster. Using this measurement, measure up from the mark on the newel post to determine the height of the top rail.
  - Mark and predrill a hole in the newel post, and use adhesive and a bolt to attach the L bracket to the newel post.
  - Note that the L bracket can be mortised into the newel post for a concealed look. Alternatively, a router can be used to machine a recess in the bottom and end of each rail.
3. Using the mark made in Step 1, center the floor flange and secure to the floor or decking with 3" lag screws. Thread the 2/1" rod into the welded nut on the floor flange, and tighten with vise grips.
  - If the newel posts are being installed on a concrete surface, drill a 8/5" hole at least 4/1-2" deep at the center of the newel post, and use an anchor to secure the threaded rod.
4. Apply PL premium adhesive to the bottom of the newel post, and place the newel post over the threaded rod. Insert the C channel into the mortised channel at the top of the newel post and tighten with a lock washer and nut.
5. Cut excess threaded rod using a reciprocating saw or cut off disk. Ensure that the threaded rod is no higher than the top of the newel.
6. Measure the span between the installed newel posts, and cut the top and bottom rails to size.
7. Layout the balusters evenly for each rail section, in compliance with the 4 inch ball rule.
8. Note that the center of your rail must always be either the center of a baluster or the center of the space between balusters in order for your end spaces to be equal.



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9. Apply a continuous bead of adhesive around each hole in the bottom rail, and insert the balusters into the holes.
10. Then apply a continuous bead of adhesive at the top of each baluster, and place the top rail over the ends of the balusters.
11. Clamp the rail section using ratchet straps approx. every 2 feet, and make sure the balusters are oriented squarely before the adhesive sets.  
—It is recommended that rail sections are allowed to cure for 24 hours before attached to the newel posts.
12. Attach support blocks to the bottom rail when necessary (spans over 8'). Cut the support block to height, apply adhesive to the top side of the support block, and screw from the bottom side of the support block into the bottom of the bottom rail.
13. Attach the bottom rail L brackets to the underside of the bottom rail. Ensure the bracket is flush with the end of the rail, then predrill a 16/5" hole and secure with bolts provided.
14. Apply adhesive to the ends of top and bottom rails, then rest the rail section on the top rail brackets installed in Step 2.
15. Center the railing on the newel post, and secure by screwing from beneath into the bottom of the top rail.
16. Secure the bottom rail brackets by screwing into the side of the newel post.
17. Apply adhesive to the tops of the newel posts and center the newel cap on the post. Secure using brad nails.
18. If the balustrade isn't pre-finished, paint using 2 coats of exterior acrylic latex paint. Otherwise touch up where necessary.

NOTE: The customer must ensure that the building substrate is structurally sound, and that the installation complies with all applicable building codes.