

Installation Guide



Installation Guide

HAAS ARCHITECTURAL MILLWORK, INC. BALUSTRADE/RAILING SYSTEM INSTALLATION INSTRUCTIONS

*Haas Architectural Millwork, Inc is a manufacturer of quality molded urethane. Our product is designed to withstand moisture, insects, and the outside elements. Our millwork has a painted finish that is chemically bonded during the molding process. This base coat will not peel or crack. An additional primer is applied prior to shipping. We do recommend top-coat painting mouldings with an exterior paint.

- Most states use the **4" BALL RULE** to meet building code regulations. This rule is that a 4" ball cannot pass through the widest opening between balusters.



- Structural integrity is the responsibility of the installer.
- Custom items cannot be returned or cancelled once the production has already begun.
- All products that have been approved by Haas Architectural Millwork, Inc. for return must be shipped prepaid and a 20% **restocking fee** will be assessed. Parts that have been installed, painted, or modified in any way may not be returned.
- Proper **safety procedures** are to be used when installing, sanding, or sawing our product, such as wearing safety glasses and a dust mask. Urethane dust can be irritating and should not be inhaled.
- Using Haas Architectural Millwork, Inc. products does not contribute to depleting our valuable forests.
- Haas Architectural Millwork, Inc. products should be stored in the temperature conditions in which they will be installed.
- Haas Architectural Millwork, Inc. **warrants** all of its' products against defects in materials and workmanship for a period of **5 years** from the date of purchase, when used and installed under recommended conditions.
- Haas Architectural Millwork, Inc. offers **balusters with extensions** on top and bottom for stair application.

Installation Guide

Newel Post Installation Kit

(Order 1 kit per Newel Post)

Kit Number*	Newel Posts
HNPk 300-4	Fits all 4" newel posts
HNPk 300-6	Fits all 5 1/2" newel posts
HNPk 300-8	Fits all 8" newel posts
HNPk 300-9	Fits all 9" newel posts
HNPk 300-10	Fits all 10" newel posts
HNPk 300-12	Fits all 12" newel posts

*Note: Newel Kits are available for either wood or concrete applicataion. To specify please add -W for wood or -C for concrete to the end of the kit number. Ex. (HNPk 300-4-W or HNPk 302-8-C)

**MADE IN THE
USA**

Railing Installation Kit

(Order 1 kit per Top & Bottom Rail Section)

Kit Number	Fits These Rails
HRK 200	HTR 200, HBR 201, HTR 210, HBR 211
HRK 204	HTR 202, HBR 203, HTR 204, HBR 205, HTR 212
HRK 206	HTR 206, HBR 207, HTR 214, HBR 215
HRK 208	HTR 208, HBR 209, HTR 216

*Note: Stair Kits are available. Please call with tread and riser sizes.

Wood Kit

1. One floor flange
2. Four 3/8" x 2" lag bolts
3. One 1/2" x 48" threaded rod
4. One "C" channel
5. One 1/2" nut and lock washer

Concrete Kit

1. One floor flange
2. Three 3/4" x 2 1/4" concrete wedge bolts
3. One 1/2" x 48" threaded rod
4. One "C" channel
5. One 1/2" nut and lock washer

**When installing newel posts, glue down to wood or concrete using a urethane adhesive.

Railing Kit

1. Two pre-drilled aluminum angle brackets (Top Rail)
2. Two pre-drilled aluminum angle brackets w/ 5/16" tapped hole (Bottom Rail)
3. Twelve #14 x 2" self tapping screws
4. Two 5/16" x 1 1/2" hex head bolts

**Curved Rails - use support blocks every 4'

**MADE IN THE
USA**

Installation Guide



Installation Guide

IMPORTANT

STEP 1

Mark the layout line and center points of each porch post and newel post prior to installation. This is very important to ensure the accurate length for installing the top and bottom rails. Use 12' as the maximum railing length.

STEP 2

WOOD DECKING INSTALLATION

1. Install blocking under where each newel's floor flange will be located.
2. Locate and center each floor flange and secure using 3/8" lag bolts.
3. Thread the 1/2" x 48" rod into the welded nut on the floor flange and tighten using vise grips.



CONCRETE INSTALLATION

1. Mark anchor hole in floor flange. Drill a 3/8" hole 1 1/4" deep into the cured concrete.
2. Insert anchor and using a punch, set the anchor pin.



STEP 3

1. Measure and combine the heights of the bottom rail and baluster (Distance X). This is the distance between the bottom of the angle brackets used to fasten railings to posts.
2. Mark the location and height of the bottom rail from the concrete or wood surface (Distance B).
3. Using the measurement of the rail and baluster (Distance X), locate the bottom of the top bracket.
4. Mark the top and bottom bracket on the newel post.
5. Mortise the newel post so that the face of the angle brackets are inset and are flush with the surface of the newel post.
6. Drill holes and secure angle brackets with #14 x 2 self tapping screws.



STEP 4

1. Rout the top of the newel post to accept the C-channel.
2. If trim collars are being used, slide them on the bottom before placing the newel post over the floor flange.
3. Put the C-channel in place and secure loosely with the nut and lock washer.



Installation Guide

STEP 5

1. Determine your rail length.
2. Cut top and bottom rail to proper size.
3. Mortise the bottom of each rail to accept the 2 1/2" aluminum angle.
4. Drill a single 5/16" hole in the bottom rail that corresponds with the single 5/16" threaded hole on the bottom 2 1/2" x 2 1/2" aluminum angle.
5. Mark a center line on rails. Mark the position of each baluster then drill a hole to accept the PVC pipe that extends out either end of the baluster. Standard hole saws work well for drilling these holes.
6. Apply a bead of urethane adhesive to the bottom of each baluster and place the balusters in the holes of the bottom rail. Apply a bead of urethane adhesive to the tops of each baluster and set the top rail on the balusters. Clamp together using strap clamps, making sure baluster blocks are square to the bottom and top rail. A straight strip of plywood wedged between the baluster blocks and strap clamps helps to align baluster blocks straight and parallel to the top and bottom rail.
7. Allow the adhesive to set for 12 hours.



STEP 6

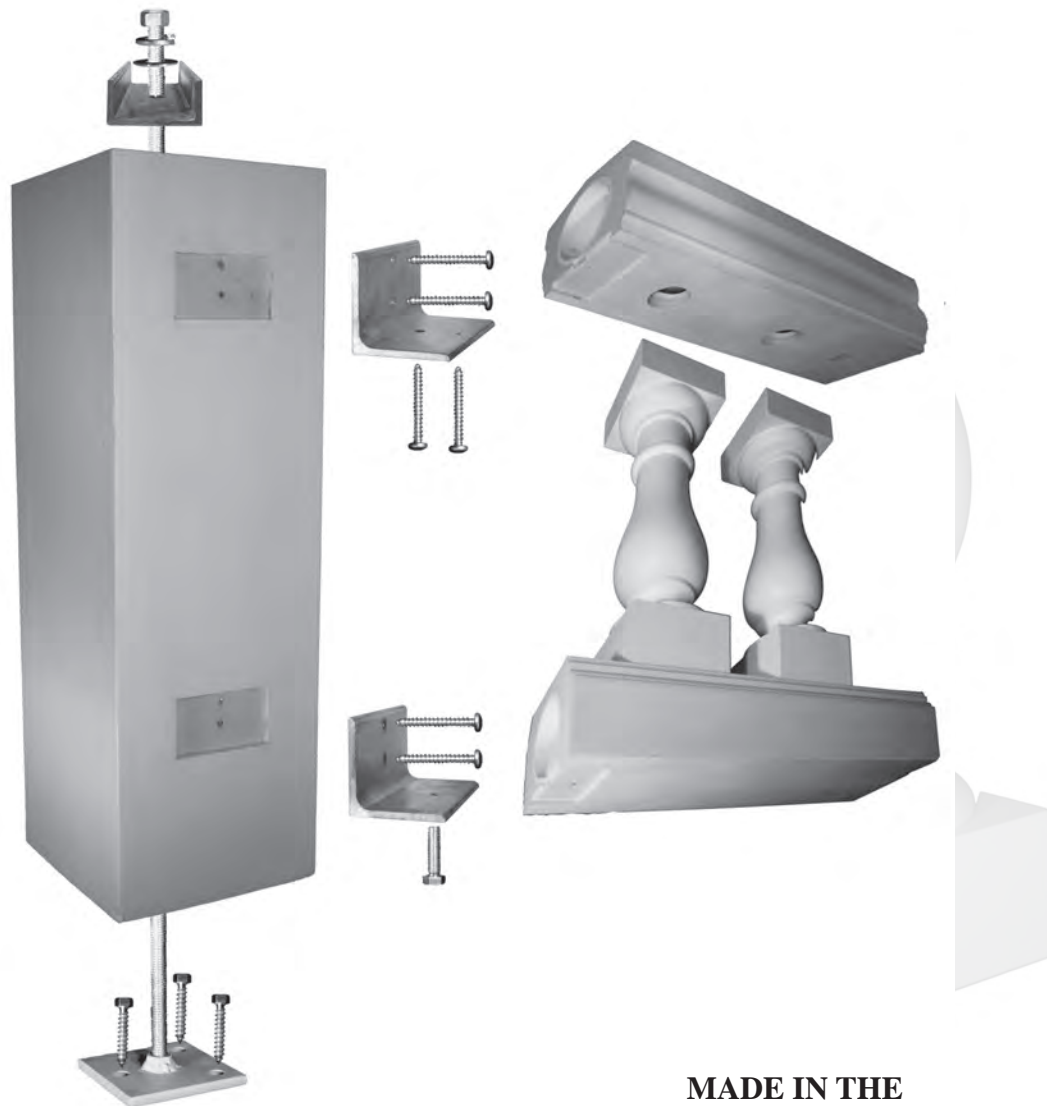
1. Remove the strap clamps from completed railing section.
2. Apply a small bead of urethane adhesive to the aluminum angles that are fastened to the newel posts, and to the ends of each top and bottom rail.
3. Leave the newel posts loose so you can slide the glued up rail section between them without smearing glue on exposed parts of the newel post.
4. Fit the mortises on the undersides of the rail onto the 2 1/2" x 2 1/2" aluminum angle that is mounted to the newel post.
5. Predrill 1/8" holes through the holes in the top aluminum plates into the PVC pipe. Install 2 #14 x 2" pan head self tapping screws.
6. Thread the 5/16" x 1 1/4" bolt through the bottom plate and into the 5/16" hole you drilled in the underside of the bottom rail. (*Note: This 5/16" threaded bolt does not provide downforce. It is intended to keep the rail from moving laterally. Typical installations do not have enough room between the decking and the underside of the bottom rail for the use of screws.)
7. After securing rail section to newel posts tighten up the nut on the newel post, securing it to the deck.
8. Apply a small bead of urethane adhesive to the top of the newel post and glue the newel cap in place. Small brad nails will keep the cap aligned until the glue sets.

Installation Guide



STEP 7

1. After the glue dries, clean off excess with a sharp putty knife. Caulk any cracks with a good quality latex paintable caulk.
2. Haas Architectural Millwork, Inc. recommends applying a finish coat of latex paint to your railing system.



Installation Guide

**MADE IN THE
USA**