

## Bending Rail Installation Instructions

**NOTE: For interior use only**

**IMPORTANT: Please read all instructions thoroughly before beginning.**

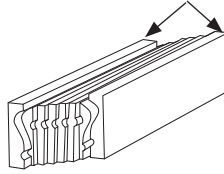
Bending Rails are designed for making curved railings on most curved staircases and balconies at the jobsite.

*Below are conditions that should be met for best results:*

### Rake Rails on Staircases

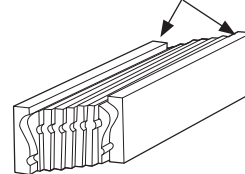
1. The Run, Rise, and Radius must be constant on that part of the stair where bending rail is to be used.
2. The minimum recommended radius to use bending rail successfully is S-6010B (30"), S-N6210 (30"), S-6710B (54")

Bending Mould S-6010BM\*



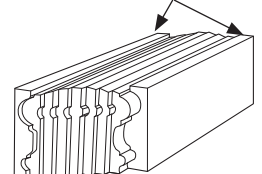
**S-6010B**  
6 Ply

Bending Mould S-N6210BM\*



**S-N6210B**  
7 Ply

Bending Mould S-6710BM\*



**S-6710B**  
7 Ply

\*Pine Bending Mould sold separately

### Level Balcony Rails

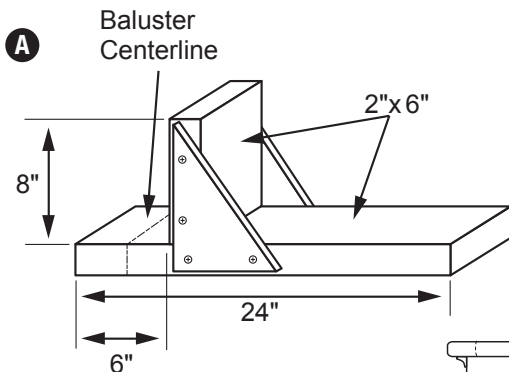
1. The minimum recommended radius to use bending rail successfully is S-6010B (36"), S-N6210 (36"), S-6710B (60").

*NOTE: Due to the irregularities in wood, it is possible that more than one attempt will be required to bend a tight radius successfully*

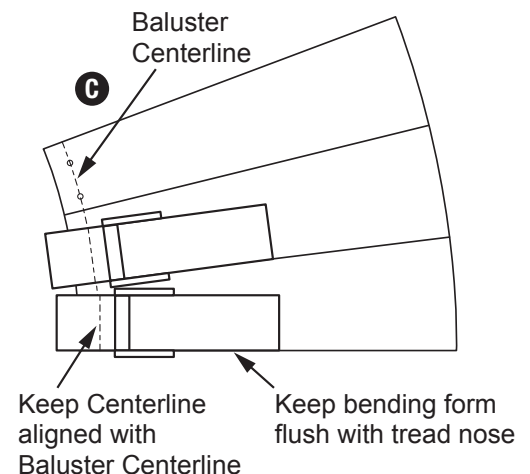
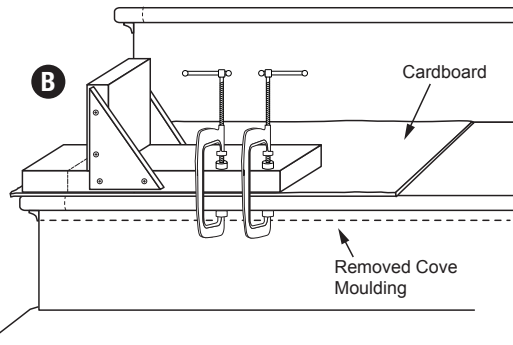
### Constructing the Bending Forms

**Step 1** - Construct the bending forms as shown in **A** below, one for each tread.

**Step 2** - Measure the total width of the bending rail, including the bending mould, then divide the total width in half to find the centerline of the rail. Mark the centerline of the rail on the bending forms. Cover the treads with a cardboard covering under the bending area to catch glue drippings (**B**). Attach the bending forms to the stair treads with clamps if finished treads (**B**). Note - you may have to remove cove moulding. Use lag bolts screwed through the form into the stair on temporary treads. Make sure to align the rail centerline marks on the forms over the baluster centerline plus keep the front edge of the bending form flush with the nose of the tread (**C**). Follow a similar procedure around the edge of a curved balcony.



**Note:** Depending on the clamps you have available, you may need to make the bottom length of your form longer to accommodate clamping the rail to the form (**C** on next page). Build one and check first before building the rest.



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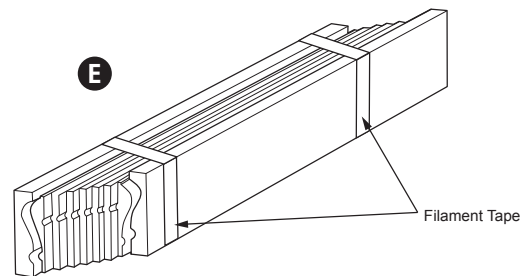
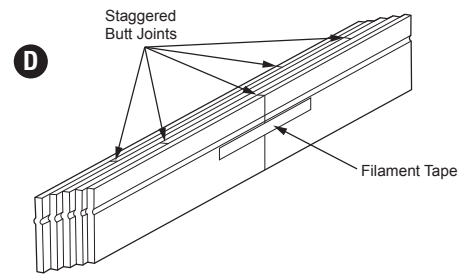
### Preparing & Bending S-6010B, S-N6210, and S-6710B Bending Rails

**Step 1** - Cover the inside of the bending mould with wax paper or plastic wrap. This will keep the glue from sticking to the mould.

**Step 2** - When a rail is required to be longer than 16', two shorter rails will be spliced together. This splice is made by making a butt joint with each layer of the rail. A 12" long strip of filament tape (or Scotch Wood Joiners No. 0) across each butt joint will hold the pieces together during bending. The joints should be staggered about 24" to prevent a bulge in the rail and provide strength at the joint (D).

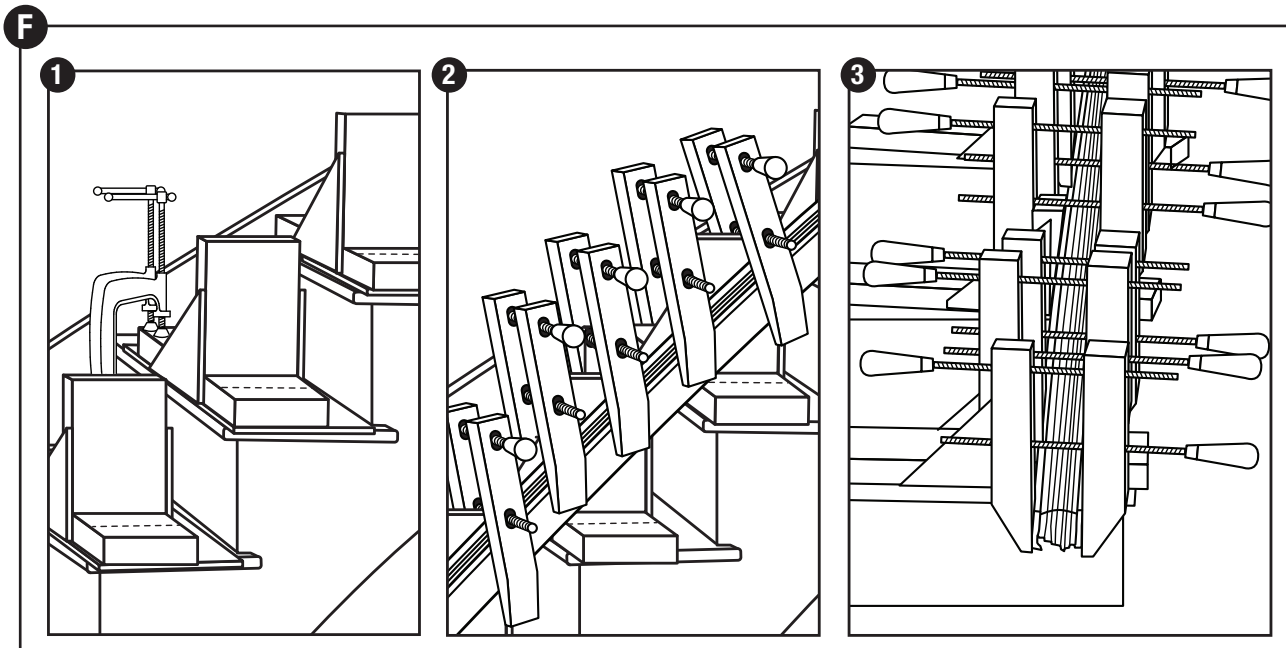
**Step 3** - Using a paint roller, or brush, put a thin even coat of glue on all contact surfaces of the bending rail. We recommend Franklin Titebond 50 or an equal substitute.

**Step 4** - Assemble the bending rail in one half of the bending mould as you glue each piece, finishing with the other half of the bending mould.



**Step 5** - Wrap the bending rail assembly with filament tape about every 4 feet to hold the rail together while forming it to the curve (E).

**Step 6** - Using bar clamps or Jorgensen clamps, start forming the rail to the curve by clamping at one end. Gradually pulling the rail to the forms and clamping as you go, work to the other end of the rail. Force the bending rail down on the front edge of each bending form. Put a clamp on each bending form and put clamps on the bending rail in between the forms. Clamps should be no more than 6" apart. It is very important to clamp the rail as closely together as possible to get good glue adhesion and a uniform bend in the rail (F 1-3).



**Step 7** - Most handrails are ready to remove from the forms in 24-48 hours. However, when bending a very tight radius, it is advisable to allow more drying time. Take the rail assembly off of the bending forms and remove the bending mould. Remove the excess glue with a hand held belt sander.

**Step 8** - Use normal methods for installing fittings, balusters, and newels. It is best to install and finish railing immediately.