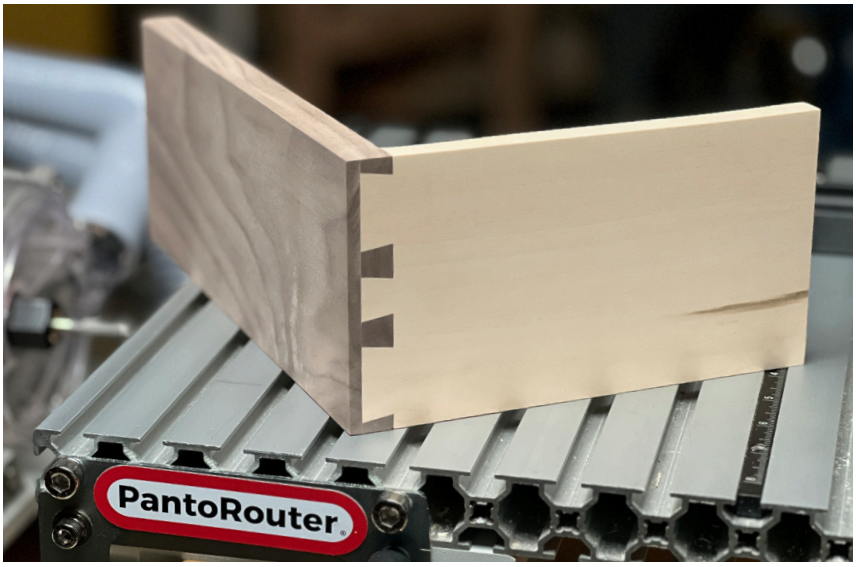
PantoRouter®

TECH TIPS

The Strength of a Through Dovetail with the Look of a Half-Blind



Half-Blind dovetails are a timeless joint seen in many furniture periods and styles. They produce an incredibly strong joint while leaving the front of a case piece uninterrupted. This results in an elegant and clean look and provides a nice surprise when someone opens a drawer to find the exposed joinery on the side.

Traditionally these joints are cut by hand but as with many woodworking techniques over the years a number of machines have been developed to attempt to replicate the look of a half-blind dovetail, all with varying degrees of success. As PantoRouter® owners know, you cannot create a square inside corner with a round router bit...no matter how hard you try. This is why all of the machine-cut half-blind dovetails we see have rounded bottoms. This can still provide the desired look but depending on the method employed there can be a compromise in mechanical strength compared to a hand-cut half-blind or a regular through-dovetail.

Here at PantoRouter® HQ, we strive towards creating templates that are easy to set up, produce great results and are fun to use. While we don't have a half-blind dovetail template available yet, this simple workaround allows PantoRouter® users to achieve the look of a half-blind, and get the strength of a through-dovetail while using the same dovetail methods they are familiar with on the PantoRouter®.

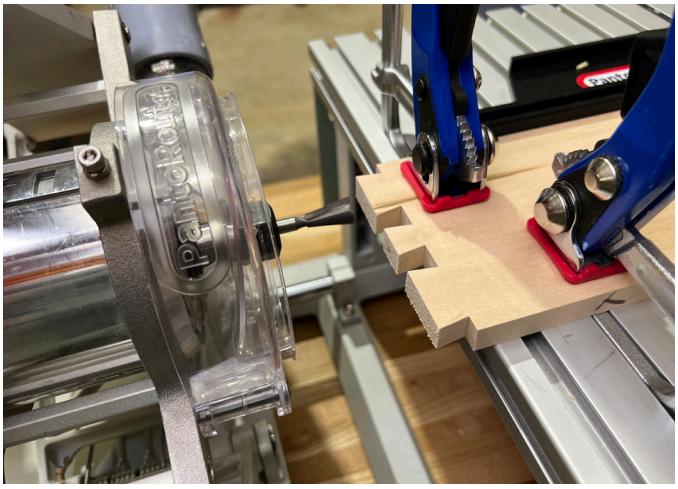
Begin by determining the thickness of stock being used for the front and sides of the drawer box, typically the fronts are 1.5-2X thicker than the sides on drawers with half-blind dovetails. For this example, our finished drawer front is 3/4" and our drawer side is 1/2". Start by milling the drawer front with flat faces and square edges. It needs to be at least an 1/8" thicker than the finished thickness. Identify your top edge and mark it with a triangle so the pieces can easily be re-assembled in the same orientation.

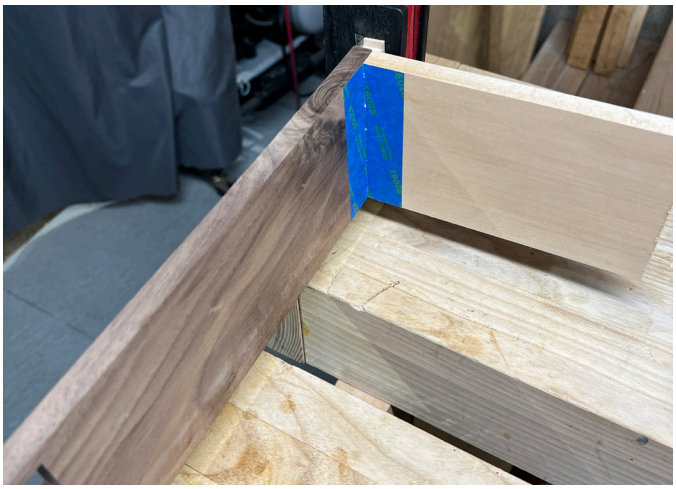
At the band saw, re-saw the drawer front so the thicker inner portion is about 1/32”-1/16” thicker than the desired drawer side dimension.

Once the front is split, mill the sides and thicker section of the front at the same time so they are the same finished dimension. You can send the false front through a planer or drum sander to clean up the band saw marks, while trying to remove as little material as possible. If the workpiece is really thin or fragile, a card scraper can make quick work of those band saw marks as well.

Lay out the drawer box pieces and mark the tops on each piece to help keep track of everything.

Now cut the tails and pins using the standard through-dovetail method described in the How-To Guide. When cutting the pins on each end of the inner portion of the drawer face, make sure the inside face is always facing up. This will ensure the grain matches up once the false front is applied to the drawer box.

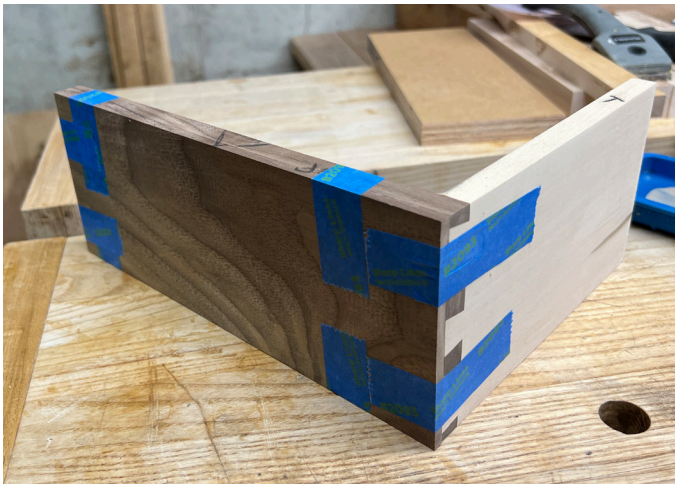




Once all of the tails and pins have been cut, glue up the drawer box. Once the glue is dry, lightly sand the joint so the ends of the tails are not protruding past the drawer face.

Using a glue roller, apply a light coat to the front of the drawer, you should still be able to see the grain of the wood through the glue. As with a most veneer work, applying the glue to the substrate or in this case drawer front rather than the veneer helps prevent the veneer from warping and makes it easier to work with. If using PVA glue, there is no need to apply glue to both surfaces.

Align the reference marks on the top of the drawer face so the grain matches up. Use strips of painters tape to hold the false front in place.



Use a piece of scrap plywood roughly the same dimension as the drawer face as a clamping caul. This task does not require an immense amount of clamping pressure, but rather even pressure across the entire surface area. Using a larger number of clamps with a medium amount of pressure will produce the desired effect while minimizing the likelihood of the false front shifting from the clamping pressure.

Once the glue is dry, sand the faces and edges of the drawer box. The seam between the false front and drawer box will virtually disappear leaving you with a beautiful half-blind dovetail joint!

Have you built a project on the PantoRouter® using half-blind dovetails? Or even better, have you made your own half-blind dovetail template for your PantoRouter®? If so, send us some photos of your project through the user project submission form on our website or email us at: info@pantorouter.com

We love to see what you come up with!