veritas®

Mini Biscuits

The material used for these biscuits is a cellulose fiberboard, which is susceptible to moisture absorption and slight swelling. If this occurs, the correct thickness can be recovered by heating the biscuits in a conventional oven at a maximum temperature of 200°F for 10 to 20 minutes. Do **not** leave unattended. The biscuits should be stored in a cool, dry place and sealed in a plastic bag or container.

These mini biscuits will fit into slots made by a standard 1/8″ high by 1 7/8″ diameter slotting cutter, a table-mounted router and a fence that pivots.

Sub-Fence Preparation

Notch the ends of two sub-fences as shown in **Figure 1**.

Attach pieces of super-high-friction tape to the exposed face of the sub-fences. If using 99K34.01, which comes in 1″ wide by 12″ long pieces, slit two pieces to obtain four 1/2″ wide by 12″ long strips. Attach two strips to each sub-fence as shown in **Figure 1**.

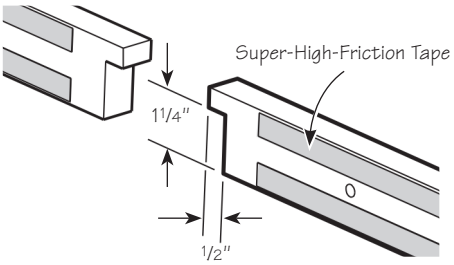

Figure 1: Sub-fence preparation.

Note: *Using high-friction tape will prevent the workpiece from shifting. This is more evident with denser woods such as oak or poplar, which require more cutting force.*

Fence Set-Up

With the slotting cutter installed in your table-mounted router as shown in **Figure 2**, adjust the bit height so that it will cut at approximately the mid-point of the workpiece thickness.

Adjust the lower rails on the fence so there is a gap of 2 1/4″ to 2 1/2″ in the middle. Place the fence on the router table, parallel to the longer edge. With the opening between the lower rails straddling the bit, and leaving approximately 1 1/4″ of the bit exposed beyond the fence, lock the fence to the table (see **Figure 2**).

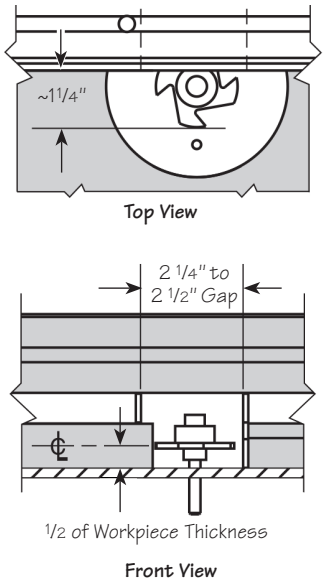

Figure 2: Fence positioning.

Slide the infeed sub-fence onto the infeed lower rail, as shown in **Figure 3**, tightening the screws only to the point where the sub-fence is just free to slide. While holding the sub-fence firmly, slowly feed it into the rotating bit until its forward end is in line with the center line of the bit. Lock the infeed sub-fence in this position. Repeat this procedure for the outfeed sub-fence, stopping when its end bears against the end of the infeed sub-fence. The junction line of the sub-fences will be the center mark for all biscuit cuts.

Clamp a stop block (or a position stop) to the router table behind the fence. Locate it so just over half the width of the mini biscuit is exposed beyond the sub-fence as the free end of the fence is pivoted to the stop; 3/8″ for the 1 1/8″ biscuits, and 1/2″ for the 15/16″ biscuits.

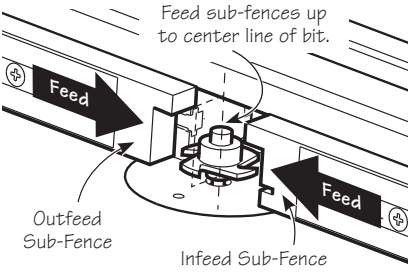

Figure 3: Sub-fence routing.

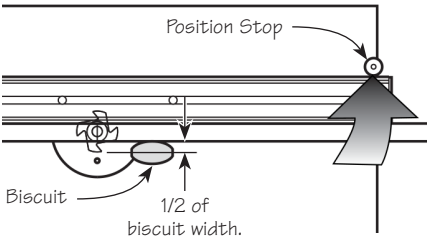

Figure 4: Stop block setting.

Note: *If you are using a standard 1/8" thick by 1 7/8" dia. slotting cutter that has a 7/8" dia. bearing, you can use the bearing as your slot depth limiter when using the larger biscuits. Place a straight edge across the sub-fences, and pivot the fence so the bearing contacts the straight edge. Clamp the stop block to the router table behind the fence.*

Marking the Joints

So that the exposed or outside of the glued joint will ultimately be flush, the outside faces should always be placed against the router table when making the slots. To ensure this, and to plan where the biscuits are to be located, dry fit the workpieces to be joined together and strike pencil lines across the **unexposed** faces of the joint wherever a biscuit is required. To avoid the pencil mark on your workpieces, strips of masking tape can be used and then marked to locate the slot positions.

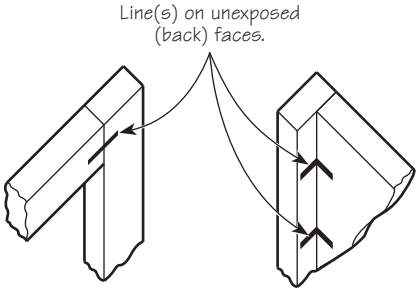

Figure 5: Joint marking.

Routing the Slots

Pivot the free end of the fence to conceal the bit. Position the workpiece against the fence, located so one of the pencil marks lines up with the junction between the two sub-fences.

With the router on, and holding the workpiece both firmly down and against the fence, pivot the free end back against the position stop to expose the cutter, cutting the slot to the preset depth. A good way of holding the workpiece against the fence is to use a push block that has a high-friction face material.

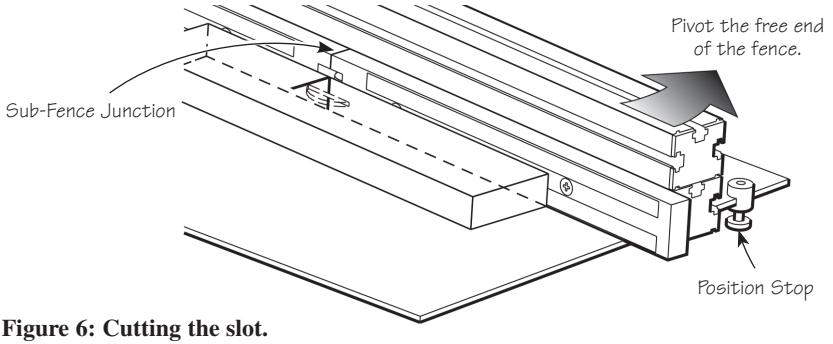

Figure 6: Cutting the slot.

Repeat this procedure on another workpiece. Dry fit the two slots together, with the appropriate biscuit in place. Check that the slots are deep enough to allow adjacent faces to mate, adjusting the stop block if necessary.

Repeat this procedure for all marked lines.

Once the joints are glued together, you will find that the exposed face is flush, usually requiring no more than light passes with a cabinet scraper to remove any irregularities or glue that has squeezed out.

Keep the notched sub-fences for future use. They can be re-used, so your set-up time will be greatly reduced.

Additional Points

End and Miter Joints: The shop-made jig shown in **Figures 7** and **8** allows you to cut biscuit slots in the ends of narrow pieces, as well as 45° mitered pieces.

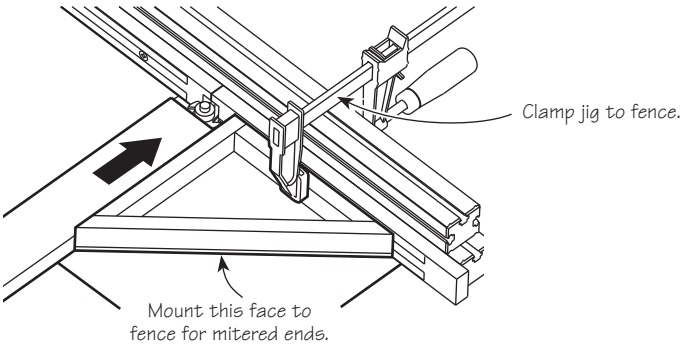

Figure 7: 45° and 90° jig in use.

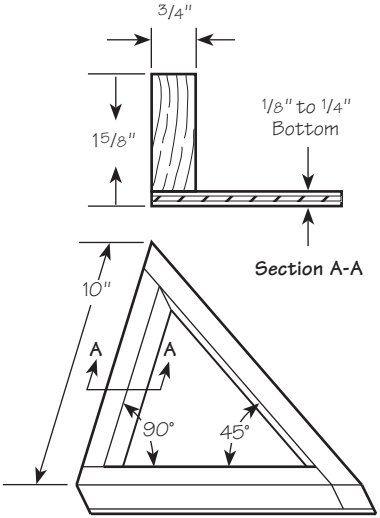

Figure 8: 45° and 90° jig.

Joining Thick Stock: The bearing on the top side of the slotting cutter may prevent the cutter from being sufficiently raised when biscuit joining thicker workpieces. In such cases, many bits of this style can have the cutter and bearing interchanged, with the bearing placed below the cutter (see **Figure 9**).

When raising the bit, note that the top of the shaft cannot be more than 15/8″ above the router table in order to avoid interfering with the upper fence rail. Alternatively, double biscuits may be used on thicker workpieces, whereby the biscuits are above one another. Just cut the slots in the workpiece, using alternate faces against the router table.

Note: *For this procedure, both pieces must be exactly the same thickness.*

Joining the Face of Large Pieces: Because the slotting cutter can be extended only to a certain point above the router table, the procedure described above cannot be used to cut biscuit slots on the face of wide panels. Instead, a 1/8″ straight bit may be used in a hand-held plunge router (see **Figure 10**).

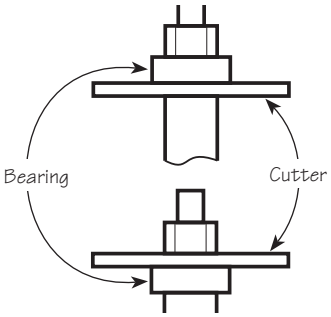

Figure 9: Interchanging the cutter and bearing.

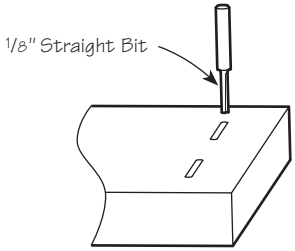

Figure 10: Cutting slots in the face of large pieces.