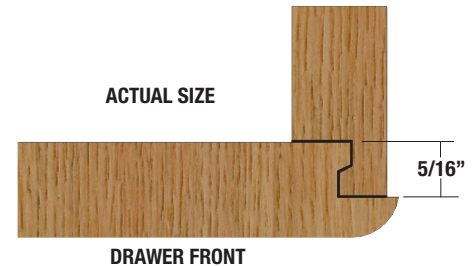




Whiteside Machine Company

Locking Drawer Glue Joints

ONE TOOL MAKES BOTH CUTS



Safety

- The Drawer Lock Joint Bit is designed for use with a table-mounted router only, at a maximum of 18,000 rpm.
- Always unplug the router before changing or working around the router bit.
- Always use push sticks, feather boards and other appropriate safety devices to keep your hands a safe distance from the bit.

Material Preparation

Minimum material thickness for the Drawer Lock Joint Bit are 1/2" for the drawer front and for the sides. When making a box-type drawer use the same thickness material for the rear face as used for the front. The material must be flat and square with accurate 90-degree end cuts for the joints to be straight and the drawer flat.

Bit Setup

Use test pieces of the same thickness as the material to be joined. When the setup is perfected, save the last test piece to be used as a setup gauge when joining the same thickness wood in the future. Install the bit and set it to a height of 5/16" above the table surface. Once the bit height is confirmed by test cuts, it remains constant when cutting the fronts and sides.

Fence Settings

Flush Joints

Drawer Front – The bit exposure outside of the fence is equal to the thickness of the side stock. An easy way to set this is to place a piece of drawer side material flat against the fence and then hold a longer straight piece of wood against that, extending across the cutter. Adjust the fence so that the tip of the cutter can rotate and just clear the long piece of wood.

Drawer Sides - For the sides, bit exposure is set so that the vertical straight portion of the cutter is flush with the fence.

Recessed Joints

Drawer Front – There are several ways to get your drawer sides to recess inside your drawer front (see above drawing). For the strongest joint, set the bit height to 5/16" and the fence to the thickness of side stock + recess desired. For the best quality cut make several passes to reach the desired depth. Example, If you side stock is 1/2" and you want a 1/16" recess, then you need to remove 9/16" material. Two passes at 1/4" and third pass at 1/16".

Drawer Sides - For the sides, bit exposure is set so that the vertical straight portion of the cutter is flush with the fence and the bit height is set to 5/16"



Whiteside Machine Company

Easy Recessed Joints

Drawer Front – The easiest way get your drawer sides to recess inside your drawer front (see above drawing on page 1). Set the bit height to 5/16" and the fence to 5/16" of bit exposure. For the best quality cut make several passes to reach the desired depth.

Drawer Sides - For the sides, bit exposure is left at the same setting, remember the sides are cut vertically. This type of cut only leaves a small piece of wood on the side joint, so not as strong as the other methods.

Cutting Orientation

The drawer front is machined outside face up, flat on the table. Because the bit is usually cutting directly across the grain, a backer board is necessary to prevent grain blow out as the bit exits the wood. The side pieces are machined vertically, their inside faces against the fence and cutter. Remember that bit height remains the same when cutting the fronts and sides, only the fence position changes. When the drawer sides are being made from sheet material it is easier and safer to machine the groove in the sheet and then cut the side pieces from it.

Adjusting The Joint Fit

Make a test joint and hold the pieces together. If the joint is loose, raise the bit slightly. If the joint is tight, lower the bit slightly. To correct a loose joint use the gap between the inner edge of the side where it meets the drawer front as a gauge. Because the correction is applied to both the drawer front and sides, adjust bit height by 1/2 of that gap width. Cut a new test joint (drawer front and side) and check the fit to confirm the fit is correct.

Assembling the Joint

Dry fit the pieces to be sure the joints fit properly and close snugly. Apply glue to the contact surfaces and assemble the drawer, inserting the bottom panel in the process. Place in clamps and apply just enough pressure to draw the joints closed. Because of the large amount of glue surface, mechanical fasteners are not required though can be added if you wish. Measure the diagonals across the drawer to be sure it is square before setting aside to dry.

Sand the joints smooth before applying finish or sealer.

Thicker Drawer Front - For 3/4" + drawer front thickness use bits 3350 or 3352 for even more glue surface area and stronger joints.