

Miter with Muscle



Slot the joint sides

Inside splines

Unlike outside splines, you cut slots for hidden splines in a frame before you assemble the joint. Start by setting your tablesaw fence to center the blade exactly on the thickness of the stock. That's vital because you will slot one side of each corner with the front face against the fence and the other side with the back against the fence. Adjust the cutting depth to about two-thirds the width of the part. Precisely center the slots on the

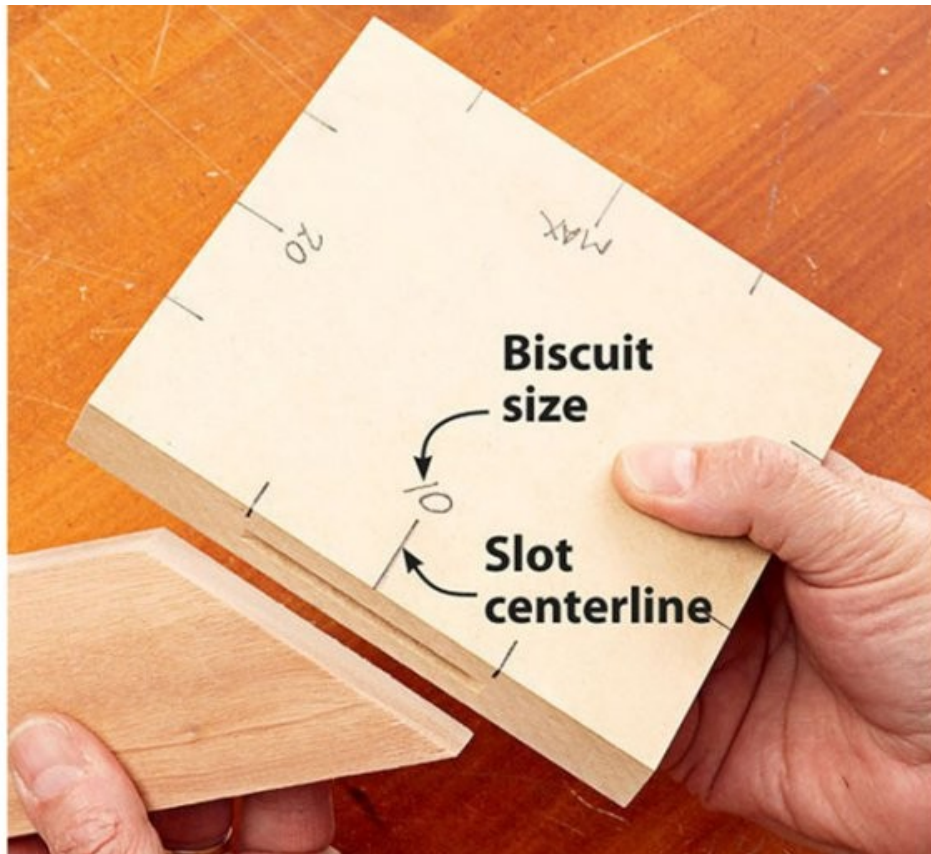
mitered joint sides to ensure that both faces will be flush when you assemble the joint.

Cut each slot with the short edge of the miter cut against the saw table.



Fit the spline to the slot

Make the length of the slot about equal to the width of the stock. Cut a spline from material the same thickness as the saw kerf. Jigsaw or scrollsaw a spline to fit the rounded kerf and test-fit before gluing. Plywood and hardboard are good for unseen splines. Assemble the joint, and glue in the spline with the grain running across the joint. Cut the spline flush after the glue dries.



How about a nice biscuit with that mitered joint?

Biscuits are as effective as splines in adding gluing surface and reinforcement to mitered joints. And, putting biscuits into a joint can be easier and quicker. However, the stock may be too narrow or thin to add them to some joints.

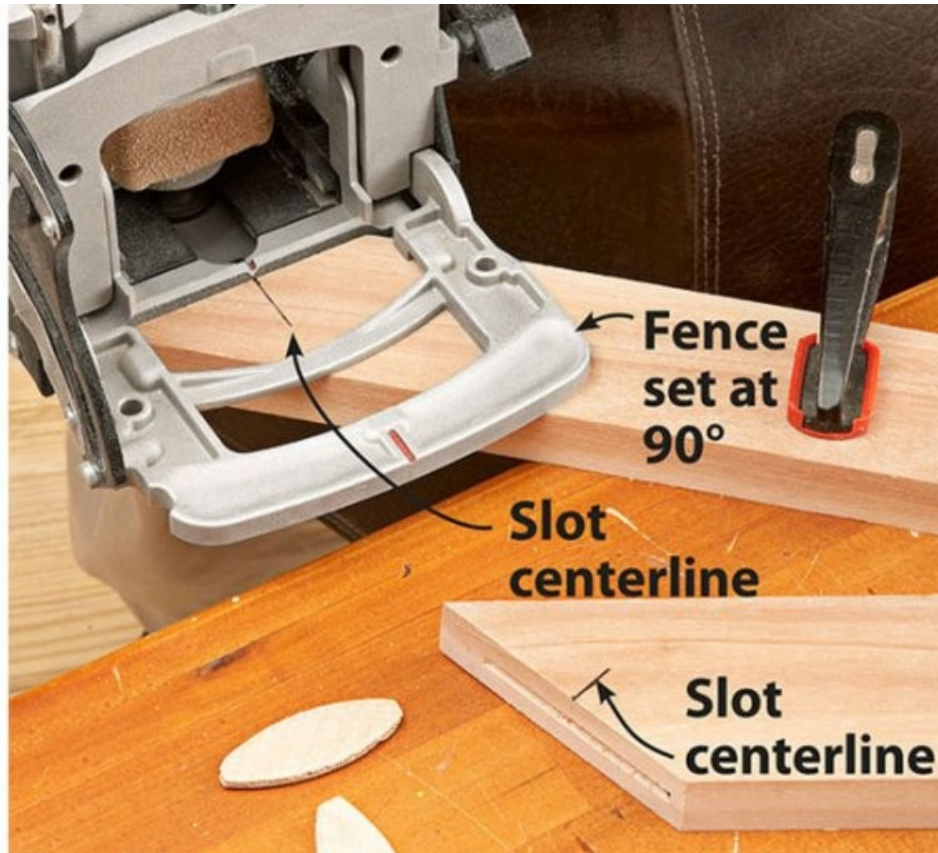
To make a gauge that will aid in choosing the right-size biscuit for a joint, cut biscuit slots of different sizes at the middle of each edge of a 6×6" square of MDF or scrapwood.

Label each slot for its biscuit size, and mark the centerline and ends for each slot on the face of the gauge. Hold the gauge against the joint parts to determine the biscuit sizes that will fit. Choose the largest biscuit that you can put in the joint.

Frame biscuits

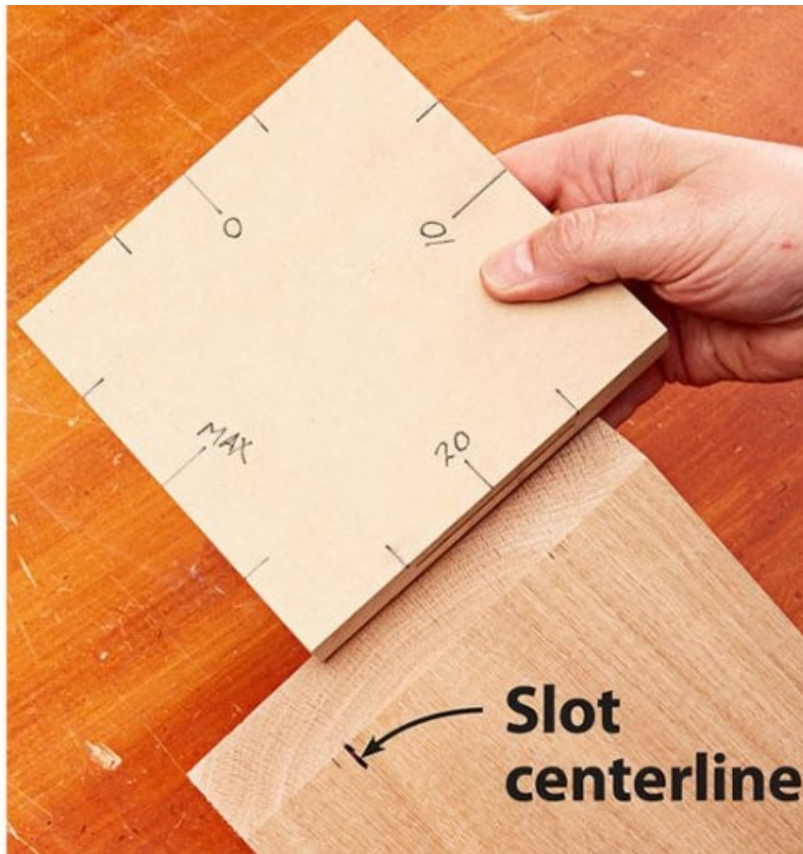
Determine the biscuit size, using the slot gauge. Center the slot in the

gauge on one face of each joint, and mark the biscuit centerline on the part. Hold the joint parts together, and transfer the biscuit centerline to the mating part of the joint.



Plunge into the corner

Set the biscuit-joiner fence to 90°, and adjust it to center the slot on the edge of the workpiece. Plunge a slot at each biscuit location. Align the biscuit joiner on the biscuit location marked on the part. Cut the slots for both sides of the joint from the same face. Apply glue to the slots and miter faces, insert the biscuits, and clamp.



Room for more

Box biscuits

Determine the biscuit size and location, using the slot gauge. Mark the biscuit centerlines on the short face of one joint side; then hold the joint together and transfer the marks to the other part. A wider joint may have room for more than one biscuit. Space the slots evenly across the face of the joint.



Biscuits in a box

Adjust the biscuit-joiner fence to 45°, and set the distance from the fence to the center of the blade at one-third of the thickness of the part. Test-cut slots in miter-cut stock the same thickness as the joint parts to make sure the slots don't break through the face. The cutter plunges the slots straight into the face of the miter cut, allowing easy assembly and gluing of the biscuit joints. Then, plunge the slots, apply glue to the slots and joint face, insert the biscuits, and clamp.

