

Woodworking Tips

Pass on the Dado Set

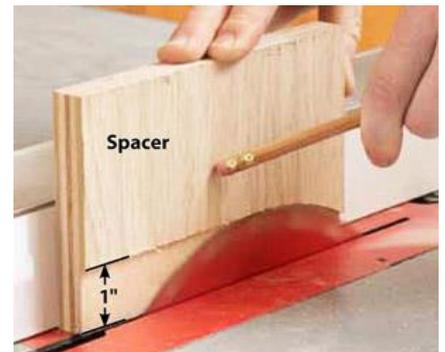
Although a dado set is a handy accessory to have for your tablesaw, it's not essential to making dead-on accurate grooves or rabbets. Try these handy tips and tricks for getting flawless results using only a standard tablesaw blade, router, or even a jointer.



Every once in a while, a project plan calls for a quick groove or rabbet; but installing and fine-tuning the width of a dado set really kills your momentum in the shop. This simple method for cutting grooves and rabbets guarantees a perfect fit, even in odd-size plywood, using the blade already in your saw.

First, cut a spacer

1. From a scrap of the stock you want to fit into the groove, carefully rip exactly a blade's thickness from one face. Make the cut about 1" deep, as shown.



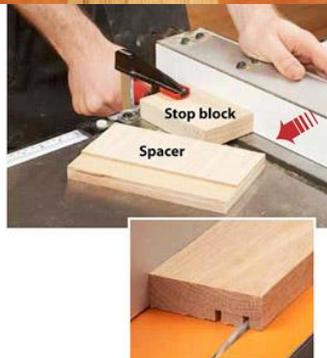
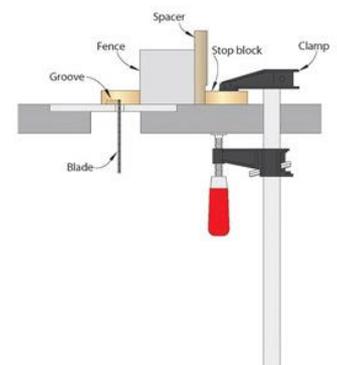
Make your mark - precisely



2. Now mark the location of the groove using a scribing knife or sharp pencil. Set the blade depth to match the depth of your groove -- no more than one-third the thickness of the stock.

Establish one edge of the groove

3. Adjust your fence so the blade aligns with the near side of the marked groove, and lock it in place. Place the spacer against the outside of your fence, butt and clamp a stop block against that, and make the first cut.



Cut the second edge

4. Remove the spacer, and butt the fence against the stop block. Make your second cut (left). Now, make repeated cuts to clear the waste between them. (See photo on 1st slide.) Move your saw fence over the thickness of your blade's kerf after each cut.

Touch up the bottom

5. After clearing the groove, remove any ridges at the bottom with a chisel of the same width as the groove or with a strip of adhesive sandpaper applied to the edge of scrap shelf stock.

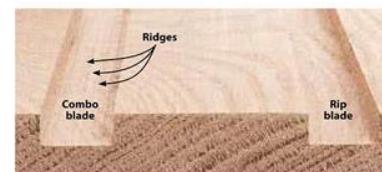


Rabbet = one-sided groove

6. Use this same technique to cut rabbets without a dado set. The addition of a sacrificial wooden fence prevents the blade from cutting into your table saw's metal fence.

Combo vs. Rip Blade

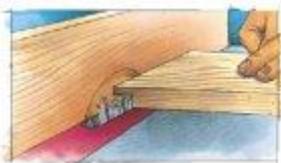
Rather than using a combination blade for cutting grooves, switch to a rip blade. The alternating top-bevel teeth of a combination blade leave ridges that weaken a glue joint if not flattened. The flat-ground teeth on a rip blade leave a smoother cut. When cutting dados across grain, however, a rip blade will cause chip-out -- use a combination blade in this instance for the best results



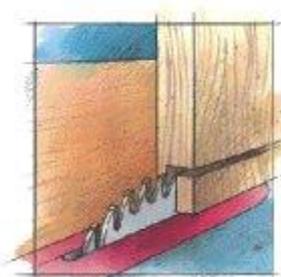
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Although simple in appearance, there's more to the rabbet cut than first meets the eye. To make the best use of rabbets, you need to know the various ways to cut them, when to use each method, and how to make the cuts effectively.

A rabbet is simply a rectangular recess along the edge or end of a workpiece. Although most often found as a joint in casework, a rabbet also can pop up as a design feature in a molding, as a recess for holding artwork in a picture frame, along the edges of a cabinet door to help recess it partway into its face frame, or as a half-lap or shiplap joint. In the *WOOD*® magazine shop we cut rabbets with a table saw (set up with a dado set or combination blade), router (handheld or table-mounted), or jointer. The choice depends on the type and quantity of workpieces, and the desired quality of the rabbet cut. Here's what you need to know about each method.



1. Tablesaw with a dado set. We use this setup often because it yields clean rabbets in one pass typically-two passes for wide rabbets. For good results, you need a high-quality dado set. Since it takes a little time to install the dado blades, we use this method only if we have several workpieces to cut.

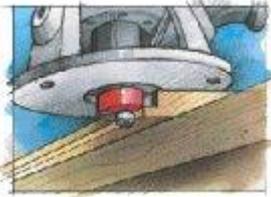


To do this successfully, first attach a 3/4" wooden face to your table saw fence. By doing this you can cut into the wooden face and fine-tune the width of the rabbet with quick fence adjustments.

2. Tablesaw with standard blade. If we're rabbeting just a piece or two, we'll leave our combination blade in the table saw and make the cut in two passes. The key: You need to precisely set the fence, and the height of the blade, for both cuts so one doesn't cut beyond the other.

First, cut the rabbet to its correct depth with the workpiece face down on the tabletop. Then, stand the piece on edge to cut the rabbet to width.

If you don't own a good dado set, or have a low-powered saw, this option may prove better than No. 1 for all of your work. But, it can be tricky if you need to rabbet the end of a narrow workpiece. In that case, you will need to clamp the workpiece to a fixture that holds it steady and upright as you guide it along the fence.



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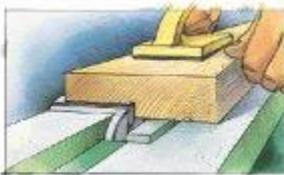
3. **Handheld router with rabbeting bit.** Unlike saw blades and dado sets, router bits do not leave tiny scoring marks. So, use a router bit if the surface or ends of the rabbets will be visible in your finished project.

Router bits are your only option if you need to rabbet an opening inside a surface rather than along an outside edge or end. Examples include a router-table opening for receiving a router plate, or the inside of an assembled doorframe for accepting a piece of glass.



With a handheld router you typically use a rabbeting bit with a pilot bearing as shown above. You can change the width of the cut simply by changing bearings. And, with this setup you can even cut rabbets along curved edges.

4. **Router table with a straight bit.** Although you can't easily rabbet large pieces on a router table, this method has some distinct advantages over a handheld router. First, a router table has a fence that ensures a perfectly straight rabbet (a bearing-piloted bit will follow any irregularities in the workpiece edge). And, although a piloted rabbeting bit will help you cut a rabbet up to 1/2" wide and 1/2" deep, you can put a large straight bit in a router table and cut rabbets up to 1X1".

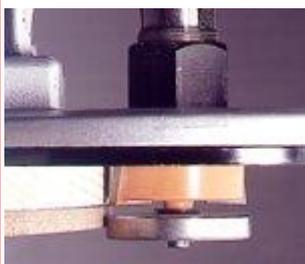


5. **Jointer.** We admit we rarely use a jointer to cut rabbets, but if you must cut a perfectly smooth rabbet over 1" wide, and along a straight, outside edge, look to a jointer. You can cut a rabbet as wide as the length of your jointer's cutterhead. The maximum cutting depth of your jointer will limit the depth of the rabbet, typically to 1/2".

To do this, you need to make an initial cut with your tablesaw. First, set the blade height to match the depth of the rabbet. Adjust the fence-to-outside-of-blade distance to match the rabbet width. As shown, this cut will prevent the end of the jointer's knives from hammering the workpiece. Remove no more than 1/8" with each jointer pass.

Rabbeting Bit Bearing Sets

With a rabbeting bit like this one, you can make rabbet joints, cut rabbets for holding panels of wood or glass in doors and other frames, or let in back panels on furniture and cabinet carcasses. Unlike the rabbets that you cut with a tablesaw or jointer, a rabbeting bit will follow curved edges such as an arch-topped door. And, with a rabbeting bit you can cut along the inside edges of an already-assembled frame.



A typical rabbeting bit comes with either a 1-1/4"-diameter cutter or a 1/2" bearing for cutting a 3/8"-deep rabbet, or a 1-3/8"-diameter cutter and 3/8" bearing for cutting 1/2"-deep rabbets. With either bit, you can greatly expand its versatility by purchasing a matching set of high-speed bearings like the ones shown **bottom**.

These bearing sets vary slightly by brand, but most consist of six bearings in these outside diameters: 1/2", 5/8", 3/4", 7/8", 1-1/8" and 1-3/8". Most of these sets mate with a 1-3/8" rabbeting bit that comes with a 3/8" bearing. With such a set you can cut rabbets in six depths: 1/2", 7/16", 3/8", 5/16", 1/4", 1/8" (the smallest bearing gives the deepest cut). To cut rabbets at depths between these, remove the bearing

completely and use the bit with a router table and fence.

Outfitted with the largest bearing (1-3/8"), you can flush-trim workpieces less than 1/2" thick using a template as shown **left**. You also can flush-trim veneers and plastic laminates, although the large-diameter bit and bearing will not allow you to trim tightly into inside corners.

To change the bearings, you simply loosen a tiny screw atop the bit with an Allen wrench included with the bearing set. Remember to place the bearing right side up when reassembling.

You can purchase these sets for rabbeting bits with 1/4" or 1/2" shanks. We prefer to use bits with the sturdier 1/2" shanks when cutting 1/2"-deep rabbets.

This Club/Guild aims to assist members to improve their working skills. Not all such activities occur in our Guild premises, and some activities or events are promoted through this Newsletter and others directly to members in some other ways, but are still Club/Guide activities, please support them. These activities may include personal and Group tuition of members by other members (we all try to help one another for the benefit of the Club/Guild in this way) sessions in members' workshops, wood-gathering, our activities to members of the public, and other such activities and events.

Ever walk into a room with some purpose in mind, only to completely forget what that purpose was? Turns out, doors themselves are to blame for these strange memory lapses.

Psychologists at the University of Notre Dame have discovered that passing through a doorway triggers what's known as an **Event Boundary** in the mind, separating one set of thoughts and memories from the next.

Your brain files away the thoughts you had in the previous room and prepares a blank slate for the new locale.

Thank goodness for studies like this. It's not our age, it's that damn door!

Did I send this to you already from the other room?

WISHING YOU A GREAT DAY....

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