

Cabinetmaking for Every Woodworker

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Hearing that someone is a cabinetmaker tends to bring respect for the woodworking skills of the person described. That's as it should be, but the skills are neither arcane, nor impossible for the average woodworker to gain. After all, most of us feel anyone can make a good box (Doug Stowe makes a good part of his living writing books that make us believe we can do as well as he can, with a little practice, much patience and...that undefinable something called style). And cabinets are really nothing more than big boxes. Size imposes some extra demands, and limits, but otherwise, cabinetmaking is box making enlarged.

Cabinetmaking as a skill set has so many facets that almost any woodworker with a decent level of interest, and a modest number of tools, can become competent in some part of the field. Overall competence takes longer, of course, but learning to make shop cabinets is a good scheme for starting on the acceptably easy end. After all, if you mess up, they're only shop cabinets. Or you can start with a simple rolling cabinet for tools, or other of life's necessities, such as a kitchen island or rolling kitchen or tool support cabinet.

Square It Up

Until cabinetmaking progresses into furniture making, the joints remain fairly simple: the hardest requirement is to make absolutely certain that all measurements are accurate and all corners are square. Basically, that means your first need in making cabinets is to go through your shop and make sure all tools are squared away. Check the table saw to make sure the fence is parallel to the saw blade, which you will already have checked to make sure it is parallel to the miter slot. Make sure, too, that each time the fence is locked it remains parallel to the blade. Check the verticality of the blade at this point. An engineer's level is excellent for this purpose, ensuring accuracy because you base everything on that 90° and the parallelism to the fence. Check the fence face, too. Check next for accuracy at a 45°. Make sure the fence face is 90° to the saw's table surface.

Repeat the process with the jointer fence, making sure it locks at 90° and stays there during use, doesn't sag away or creep), as it also must at 45°.

Another set-up repetition comes with your compound miter saw. Get it square and then check intermediate angle settings for accuracy.

Most good tools remain accurate for a considerable length of time after the original work of setting them up. Some will be obviously off in short order, but with others, you may not notice until you've wasted wood. Keeping a small engineer's square in an apron pocket is a good way to prevent problems. Check every few days to see that settings that claim to be square really are still 90° You'll quickly learn which of your tools are most likely to slip out of adjustment most often. Among these you'll find the radial arm saw and the compound miter saw.

At this point, you want to review all you've ever heard about getting smooth cuts with the various types of saw blades. Working with face frames calls for a top grade 24 to 30 tooth finish rip blade. Working with laminates and MDF and similar manufactured materials requires a

superb laminate cutting blade, one that resists the abrasive action of the adhesives in the manufactured wood products and the resins in the laminates. Fortunately, most of today's blades are carbide tipped, because that is what you absolutely need for cutting particleboard and MDF, and for slicing laminates. Carbide teeth also last a lot longer in regular use than does high speed steel so that high speed steel blades are now used mostly in special circumstances (when nails or other metals might be found in the wood being cut, for example).

Get Ready

Check your blades and make sure they're sharp, free of gum and pitch, and ready to go. Measuring and marking tools come next. The tips here are handy for all types of projects, as well as for making cabinets, so you might want to file them away:

Use the shortest tape measure the job requires (obviously, you're not going to use a 10' tape measure to work out cabinet dimensions for a 28' kitchen, but most of us don't want to be lugging a 33' tape measure to measure a 10' x 12' kitchen).

If you use more than one tape measure on the job, measure and compare several distances with both tapes to see how they differ. Carefully note those differences and allow for them in use.

Learn to make and use story sticks. Story sticks almost eliminate the need for measurements by any other means.

Always treat squares gently. Get hold of an accurate framing square and an accurate try square and check their squareness often, resetting as needed (see sidebar article).

Use a marking knife instead of a pencil when laying out cuts. Save the pencil for your story stick.

Use a compass or a Contour Scribe to mark cabinets for installation against walls and molding. Use a rasp, scroll saw, or belt sander to shape to fit.

Develop consistency in measuring and marking, including the transfer of measurements to tools when needed for making cuts. For example, if you're going to split your mark one time, do it every time. If you're going to cut to the left of the mark once, do it every time. Move your mark for corresponding accuracy; do not move your cut.

There is an awe-inspiring range of tools for every cabinetmaking job. You don't need them all, but you do need some. Consider carefully what the job is going to force you to have on hand. Then make sure you have those tools.

Slicing the Sheets

Most sheet material cutting can be done on a framework that includes several 2 x 4s, a couple of sawhorses and a chunk of 2" thick Styrofoam (or other plastic insulation board). Add a good quality straightedge or a cutting jig to a top quality blade on your circular saw, and you'll get cuts accurate enough for almost any cabinetmaking job, though the final cut is usually more accurately done with a table saw with a wide (50" or 52") capacity fence, and a large outfeed table. A standing, or vertical, panel saw makes it easier, as well as more accurate, but is an expensive tool for the hobbyist. I made all my shop cabinets using nothing more than some

Styrofoam, a shop built straightedge guide for my circular saw, and a top quality saw blade for all length cuts (I used mostly 25" x 144" high density particleboard, so rips to width were easily done). It takes some extra time and care in transferring measurements, but once the guide is clamped in place, accurate cutting is easy. Laminates can be trimmed with a laminate cutter and rolled into the contact cement using a J roller, both inexpensive tools. Veneer edge trimmers also work for laminates, so special power laminate trimmers, and the bits for them, are not essential (though they ease trimming work by a fantastic degree: the bits can be used in any 1/4" chuck router, too).

When the time comes to put doors on your cabinet carcass (box), you'll probably find a need for more power tools. The doors themselves can be built on the table saw (including doing the raised paneling, if any), or they can be done with a table saw and a shaper, or a table saw and a router table. One of the latter two choices eases work considerably, and usually results in a better looking job (normally, using a shaper or router table gives a raised panel that needs much less sanding than does one produced on a table saw), allowing more professional finishing procedures.

Standard cabinetmaking is based on the right angle, as a friend of mine once said of carpentry, with everything following from that point. If you get that 90° correct, measure other angles and distances carefully, and don't slop up the assembly, you're going to make some good, solid cabinets. It's when we come to the extras, the special joinery for decorative or structural purposes, the pieces that move out and away from security as base or wall cabinets and into the furniture arena, that we see real complexity rearing its lovely head. That extra fancy joinery is not necessary, and can even be counterproductive when you're producing cabinets, whether for your shop, kitchen, bath or any other room in a house. For the most part, cabinets are joined using butt joints, rabbet joints, dadoed joints, and pocket screws, biscuits or dowels for extra strength, or speed (or both), in assembly. The beauty in most cabinets in the home comes from raised panels, wood grain and the general proportions of the cabinets themselves. When you start making furniture in addition to cabinets, then the dovetail joints, finger joints, mortise and tenons and other more complex techniques come into play.

Learn to make the basic cabinets needed around a home and shop. Branch out from that point, making, as you desire, fancier cabinets, or move on over into furniture where artistry and craftsmanship can be far more demanding than simple cabinetmaking.