

Choosing & Using

Japanese Saws

Expand your tool arsenal with handsaws that belong to a centuries-old tradition of craftsmanship

By Yann Giguere

Today I teach Japanese woodworking techniques and take on custom woodworking projects in my Brooklyn studio, but my first exposure to Japanese-style woodworking was entirely accidental. When I began to learn woodworking in a cabinet shop, we worked primarily with power tools. The one handsaw we had was a Japanese “pull saw.” My mentor explained that “we use it because it works great.” I gave it a try and...wow! I was “pulled” in. I purchased my first saw and the pleasure grew—motivating me to undertake a formal apprenticeship with a Japanese woodworking master.

You don't have to be devoted to Japanese woodworking to appreciate the unique qualities of Japanese-style saws. In this article, I'll provide details on choosing and using the three types of Japanese saws that enable you to do a wide range of cutting by hand.

Alignment is important. Pull saws provide you with a number of different cutting positions. But in all cases, accuracy is easier to achieve when the dominant hand, arm and shoulder are in line with the cutline.

Pull saw pros and cons

The pros and cons of pull saws have a great deal to do with their thinner blades and with the way that crosscutting blades are sharpened (see photos below).

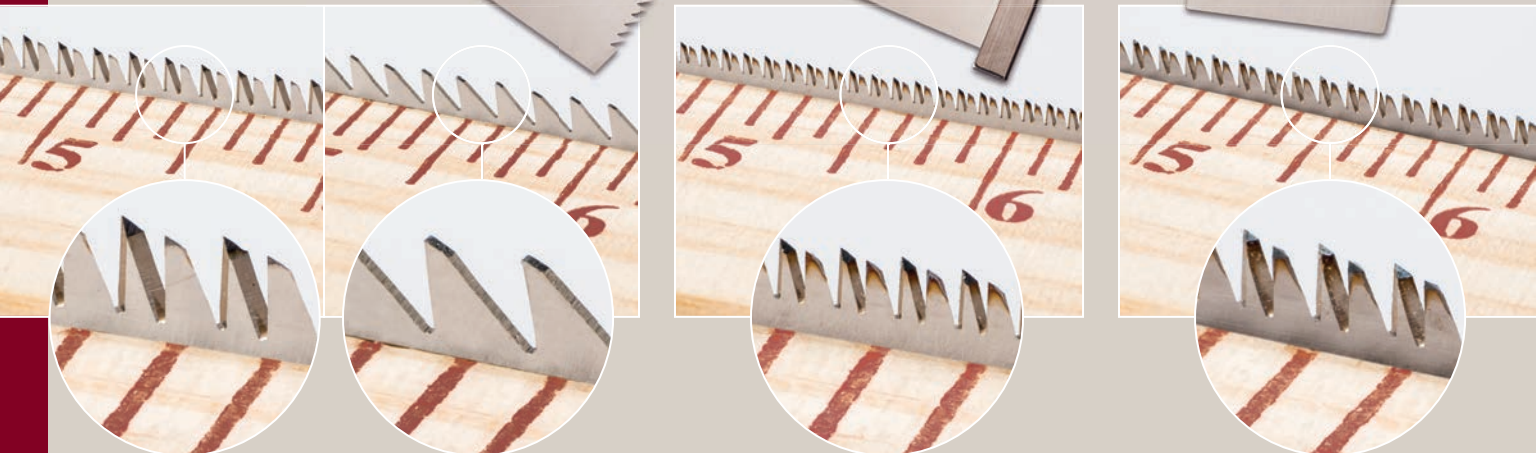
PROS

- Less energy required for cutting.
- Faster cutting than Western-style handsaws.
- More flexibility in cutting positions.
- Thin kerf is an advantage in certain situations.
- Saws with replaceable blades eliminate the need to sharpen or repair a dull or damaged blade.
- Long handle accommodates two-handed grip when necessary.

CONS

- Crosscutting teeth can be easily damaged by misuse or accidental impact.
- Too long to fit in a toolbox. (But folding pull saws overcome this limitation.)
- Dull or damaged crosscutting blades are difficult and time-consuming to resharpen.
- Straight handle will feel strange to Western-style saw users.

Versatile cutting capability. Japanese saws come in different styles, based on the type of cutting that needs to be done. The three basic types shown here can handle a wide range of cutting assignments. See the Buyer's Guide (p. 61) for specific saw recommendations. Magnified views show that ripping teeth on pull saws are similar to those on Western-style saws. But crosscutting teeth on Japanese saws have a long, knife-like form that allows them to cut quickly, smoothly and with less effort.



Ryoba saws are all-purpose performers

The workhorse of Japanese saws, the ryoba is easy to identify because it has two sets of teeth—one for ripping and one for crosscutting. If you're new to hand-sawing on the pull stroke, I recommend using a ryoba as your "starter" saw. Ryobas are often described by blade length (in millimeters), because this usually indicates the saw's main uses. In general, shorter saws have finer teeth, enabling you to do more exacting work. A 210mm (8¼") ryoba is for furniture. I use my 240mm (9½") ryoba for general carpentry. A 270mm (10¾") ryoba is for larger work, like timber-frame joinery. If you look closely at the ripping side of a ryoba saw, you'll notice that the teeth are smaller at the heel of the blade, which makes it easier to get a cut started.

My 240mm blue hard Gyokucho ryoba (see Buyer's Guide on p. 61) is a favorite of mine because of its versatility. Though this saw's teeth are ground for cutting hardwoods, they will do fine cutting softwoods as well. The teeth are



One blade, two sets of teeth. This 240mm ryoba is a great general-purpose saw that's also capable of precise cutting.

fine enough for very precise cutting—the next best thing to a dozuki saw for joinery work.

When just starting to use a ryoba saw, it may seem difficult to make a straight cut with such a flexible blade. The secret is to plan your cut so that the kerf you initially make can guide the blade as you finish the cut. Make a cut in stages, as shown below, and you'll be surprised at the accuracy you can achieve.



Cut tenon cheeks with the ripping blade.

Start cutting at the top corner of the workpiece, and maintain a diagonal stroke that follows the layout lines on adjacent surfaces. Cut all the way to the top shoulder and bottom corner. Then switch to a vertical stroke. The existing kerf can guide the blade as you complete the cut.

Crosscut from one side, then the other.

Start the cut at the top corner, and maintain your cutting angle as you saw.

When the kerf extends nearly all the way across the top of the workpiece, change your cutting position so the top kerf can help guide your cut into the near side of the workpiece.



Dozukis excel at fine joinery

Once you're comfortable using a ryoba saw, you will want to make even finer cuts. The dozuki is just the ticket. Like a Western backsaw, it has a thick steel spine that keeps the blade rigid as you cut. But unlike a Western backsaw, a dozuki cuts on the pull stroke, and it has a much thinner blade that excels at precise cutting. The word "dozuki" means shoulder cut, and these saws are designed for cutting tenons and dovetails. With practice, you'll be able to use a dozuki to cut joints that require little or no paring.

The wide blade on the dozuki I'm using here enables you to make deep cuts, but dozukis with shorter, narrower blades are also available. They cost less, but can still handle most of the joinery work required for furniture construction.

Dozuki for dovetails. The dozuki's teeth are sharpened for crosscutting, but they'll do a fine job with the short ripcuts required for hand-cut dovetail joints. After cutting the corners free, I'll remove the rest of the waste with hammer and chisel.



Cheeks, then shoulders. When cutting tenons, I start by making cheek cuts using my ryoba's ripping blade. Then I switch to a dozuki (shown here) to make the shoulder cuts.



Choose a kataba yokobiki for deep or long crosscutting

What comes next after you've acquired ryoba and dozuki saws? For many woodworkers, the answer is the kataba yokobiki. "Kataba" translates as "cutting on one side;" "yokobiki" is Japanese for "crosscut." This saw is designed to take up where the ryoba leaves off. If you have to make a deep or long crosscut with a ryoba, the smooth cut made by the ryoba's crosscutting teeth will be damaged by the ripping teeth on the opposite side of the blade. The kataba eliminates this problem. The kataba's other common use is flush-cutting, which should be done by protecting the workpiece with a sheet of paper.



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