PlansNOW®
www.plansnow.com

THANK YOU!

You have successfully downloaded your **FREE** PlansNOW.com woodworking article.

- Go to Page 1

flawless cuts with a Jig Saw

Learn a few secrets to boost the performance of your saw without a lot of fuss or time.

Using a jig saw sounds simple. Turn it on and push it through the wood. But often, the results can be pretty rough. A lot of times the cut edge is splintered and when I go around a curve, the blade bends and the saw bounces around like a jackhammer.

It's easy to just think of a jig saw as a "roughing" tool. But you don't need to settle for sloppy cuts. I found a few tips and techniques that will work to improve the cuts you make with any kind of jig saw. And, best of all, none of them will cost a lot or take much time.

Orbital Action. To start with, there are a couple of adjustments you can make to your saw that will help you get smoother cuts.

For example, many saws feature an orbital cutting action to power through construction lumber. In addition to the blade moving up and down, the orbital motion adds a "kick" to the blade on the upstroke. This extra push on the blade makes it cut faster.

But it also means the cut edge will be pretty rough. That's not a big deal in construction work. But when I'm using high-quality plywood or cutting curves in hardwood, I turn off the orbital action.

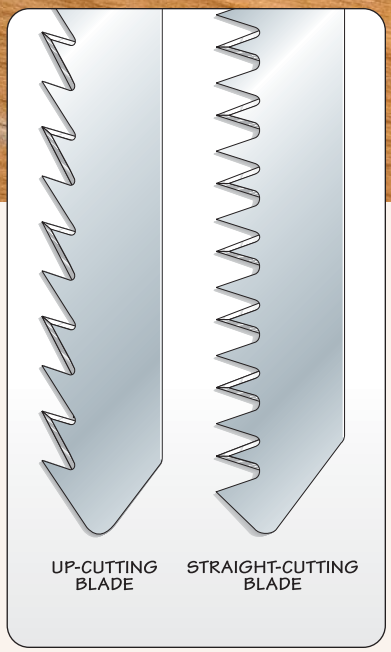
► *Orbital Action. If your jig saw has an orbital action feature, the first step to smooth, splinter-free cuts is to turn off the orbital action.*

Now, you have the blade only moving up and down. While this means the cut will take a little more time, you'll have a lot more control and the cut edge will be smoother.

The Right Blade. Turning off the orbital action of the saw is a good starting point for smoother cuts. The next place to improve the cutting quality is by choosing the right blade. The drawing above shows you two blades that I keep on hand for smooth cutting.

Even though they look different, each of these blades has one thing in common — a high tooth count. Packing more teeth on the blade allows each tooth to take a smaller bite with less tearout.

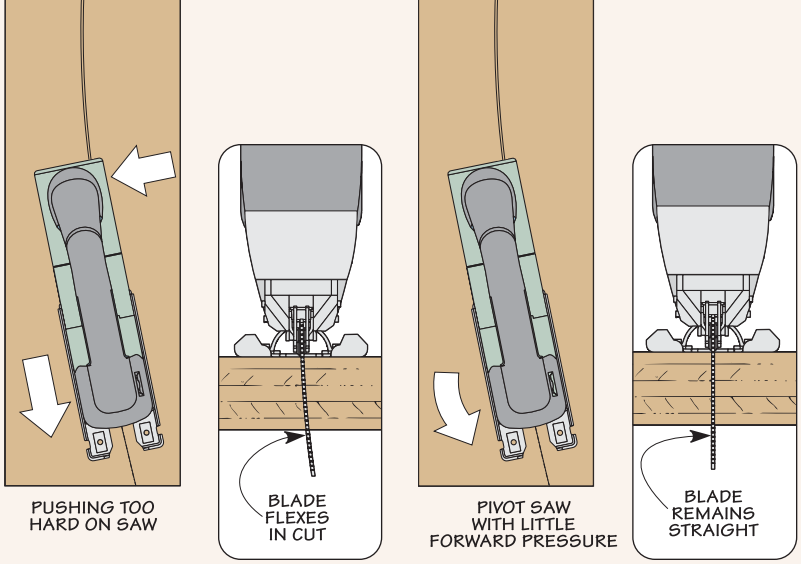
Upcut Blade. The type of blade I use most often is an up-cutting blade with 12-16 teeth per inch (left blade in drawing). Jig saws are designed to cut on the upstroke. The reason for this is better control. When the blade cuts on the upstroke, the saw is pulled down against the workpiece. This helps prevent the saw from bucking and makes it easier to steer the tool.



▲ *Two Blades. An upcut blade (left) with 12-16 TPI will handle most cuts. For tight corners, I use a 20 TPI blade with straight teeth.*

Because of this cutting action, any tearout on the cut is going to be on the top face as the teeth exit the workpiece. So it's a good idea to

▲ *Turn from the Front.* *Grip the saw directly above the blade when cutting curves. Take it slow, and let the blade do the work.*



▲ *Problem.* *Too much forward force on the jig saw causes the blade to deflect in the cut.*

▲ *Solution.* *Slow down and pivot the saw around the blade. Now, the blade stays straight.*

place the good face of your workpiece down. (In the box at right, you can see a another way to prevent tearout with an upcut blade.)

Curve-Cutting Blade. When I need to cut tight curves or if I need both faces of a plywood panel to look their best, I switch to a different blade. This blade has 20 teeth per inch and they point straight out. These teeth have a slicing action that leaves both faces clean.

CUTTING TECHNIQUES

With your saw set up, you're ready to start cutting. But there's more to smooth jig saw cuts than setup. Here are a few techniques that will improve your results.

Cutting Speed. As you're cutting with either of these blades, you'll notice they have a natural cutting speed. This is the amount of material the blade will remove with light pressure on the saw.

I know it's tempting to push the saw full-speed ahead and get the cut done faster. But, if you relax and let the blade do the cutting, the cut edge will be much smoother.

The Grip. The small size of a jig saw makes it seem natural to hold it in one hand and the workpiece with the other. But you'll find the saw is easier to control if you hold it with two hands.

You can then secure the workpiece with clamps. By clamping the piece to the workbench close to the cut line, you can prevent it from vibrating and binding on the blade.

Turning Corners. Keeping both hands on the saw works great for straight cuts and gentle curves. But when it comes to turning tight corners, I use a different technique.

The problem you can run into is that the cut edge ends up beveled, as illustrated in the left drawing above. This comes from pushing the saw forward too hard while trying to turn the corner. Like a car skidding around a corner, this action puts a lot of pressure on the side of the blade (inset drawing).

The solution is simple. I take it slow and try not to put much forward pressure on the saw. Instead, you want to guide the blade around the corner. And, it'll feel like the saw is pulling itself along.

Overhand Grip. Then, to get the best control for the turn, I hold the saw with only one hand directly over the blade (photo at left). This seems like the opposite of what I said earlier, but in this position, you can better pivot the saw without pushing it to the side.

As the saw comes out of the turn, you can go back to a two-handed grip. And when you're finished, you'll see that it doesn't take a new saw to get smooth, square cuts.

Smooth Cuts: Stop Tearout

▲ *Masking Tape.* *To help prevent tearout in the top face of the workpiece, you can apply masking tape to the cutline. The tape holds the fibers in place and keeps them from splintering.*