

Do more with your block plane

BY JEFF MILLER

The block plane is a great acquisition for a woodworker of any skill level. Pound for pound (or ounce for ounce), it packs in more value than almost any other hand tool. The key is its compact size. A block plane fits in one hand, making it easy to control. It can be used with a delicate touch, and with your grip being so close to the wood's surface, it's easy to develop a good feel for the tool.

I'll show you how to use a block plane to take your woodworking to another level. But first, a few words about the tool itself.

Go low angle, and keep it sharp

There are two types of block planes, standard models with the blade, or iron, held at 20°, and low-angle models with the blade bedded at 12°.



Breaking edges

Compact and versatile

The block plane has no equal when it comes to trimming and refining furniture parts. It accommodates a variety of grips. Work one-handed to free up your other one to hold the work, or clamp down the workpiece and use two hands for more control.



Trimming parts flush



Shaping and smoothing

Fast flush-trimming

The block plane is wonderful for bringing one part down perfectly flush to another and for leveling joinery, with no damage to the surface below.



Perfect for plugs and pegs. Whether it is plugs that cover screw holes or pegs used to strengthen mortise-and-tenon joints, the block plane brings them flush quickly. Angle the plane sideways as you push it forward, to make a cleaner, shearing cut.



Best way to trim edge-banding. Make solid-wood edging a little wider than the thickness of the plywood, and then plane it flush after the glue dries. To keep the plane level, run its heel end along the panel.



Great for dovetails, too. To avoid chipping off the edges of these end-grain dovetail pins, Miller planes in toward the drawer, where the grain is supported.



Level a drawer's edges. The block plane balances nicely on narrow surfaces, and can be held in a number of ways. Miller starts by planing down the highest edges (left). When they are level with the others, he changes his grip and pulls the plane around the corner (right) for a final clean pass.

designed for end-grain work. Both types have the blade bedded with the bevel facing up. I would recommend a low-angle model as a first block plane. Get the blade razor sharp (I hone the bevel of the low-angle plane at roughly 30°), set up the plane to take fine cuts, and you'll get great results on end grain and long grain alike. (For more on standard vs. low-angle block planes, and for recommendations on which ones to buy, see Mario Rodriguez's review in *FWW* #228.)

How to push (or pull) a block plane

The block plane is designed to be held easily in one hand, but I recommend using both when possible, to increase your control over the tool. There are a number of ways that I add my second hand (see photos, this page and opposite); I even reverse hands and pull the tool through the cut when needed. It works just as well.

The cap at the back of the plane goes in the palm of your main hand, to help you push firmly. It

also helps to keep your wrist straight so that your forearm lines up with the direction you want the tool to move. You want an easy and direct transfer of force from your body through your arm and the base of your hand to the tool.

Heavy planing is best done with the force coming from your lower body—all the way down to your feet—leaving your hands and lower arms for control. But for lighter cuts or awkward situations, you'll find that pushing with your arms is just fine.

A host of helpful tasks

One job where the block plane has no equal is bringing one part down level with another. Some woodworkers use a sanding block. But a sanding block is hard to control and can damage the surrounding surface. The block plane, on the other

Crisp bevels and quick roundovers

The nimble block plane balances nicely on corners, too, whether lightly breaking an edge or forming a full roundover.

Make edges friendlier. To make the corners of your projects softer to the touch, use the block plane to put a light, even chamfer on them.



Crisp bevels, too. To make perfect bevels of any size, such as on this tabletop, first lay out guidelines along the adjacent surfaces (above). Adjust the angle of the plane as you work toward the lines (right).



Change your approach on end grain. To avoid tearout when beveling the end of the tabletop, Miller points the toe of the plane toward the end grain as he planes. This shears it cleanly.



Detail work is no problem. A heavy bevel finishes off the bottoms of these table legs. Skew the plane for this end-grain cut, but make sure the toe starts out level for each pass.

hand, is a precision instrument that lets you focus the cutting action where it belongs. Hold the work securely and work the plane with two hands, if possible, to better feel the surface below and do a better job of keeping the plane parallel to it.

Get everything level, and then use a sanding block for final smoothing.

Another task the block plane handles best is easing the edges of a project. Beginners often stumble at this stage, either sanding big, inconsistent roundovers onto the edges, or moving to the other extreme and leaving them too sharp. The block plane offers perfect control over the process, letting you do everything from a tiny chamfer to an obvious bevel or even a smooth roundover.

Working an edge can be done with either one or two hands on the plane, but if you are simply breaking the edges, the work goes faster if you hold the workpiece down with one hand, rather than clamping it in each new position. Hold the plane at 45° to the board, of course, but also skewed at an angle to the line of travel, ensuring that it will make a shearing cut for the smoothest results.

As with all handplaning, you want to cut with the grain, and you can usually determine its direction by looking at the predominant grain pattern at the edge. But the fact that you're planing at the intersection of two surfaces can make things tricky. You may have to simply check the results to see which direction works best.

Great shaping tool, too

The versatile block plane can form everything from big curves to tiny facets, delivering glassy surfaces in seconds.



Turn a bevel into a roundover. By lightly planing the top corner (left) and the lower corner (right) of a big bevel, and then making even lighter passes on the corners of the three smaller bevels, you will create a series of tiny facets that form a uniform radius.



Even it out. Light hand-sanding blends the tiny facets into one even roundover, faster than you could make it with a router, and cleaner, too.



Smoothing shallow curves. By rocking the plane forward as he goes, Miller is able to quickly smooth the bandsaw cuts on this table leg, leaving a more uniform curve than a sanding block would create.



Forming small parts. After bandsawing this custom drawer pull, Miller cleans up each facet with the block plane. On a small surface, find the right planing angle, lock your arms, and push with your upper body.

If you're chamfering end-grain corners, as on the bottom of a leg or the ends of a panel, be sure to angle the plane so it is pointed toward the end grain. Otherwise, you will get tearout. To make a larger chamfer at any angle, you'll need to start with some basic layout. Mark out the final edges of the bevel on the two adjoining surfaces. Now take a guess at the angle to hold the plane, and make a few passes. You'll soon be able to see how you're doing in relation to your marks and adjust the angle as necessary.

To ease an edge so it is even more pleasing to the touch, start with a 45° chamfer. Now plane the two corners

to make an edge with three facets, and then repeat the process to achieve a roundover.

The block plane is also a good choice for smoothing gentle convex curves. You'll need both hands on the plane for this, and a bit of practice. Keep the plane aligned with the direction of cut, and find the balance between your hands that brings the edge into contact with the work. Push forward with your lower body

and concentrate on following the curve. This should feel like you're pushing the plane over a wheel that is rotating.

The same feel and control over the plane's orientation makes the block plane wonderful for shaping and smoothing small parts, or small facets on larger parts. Check the surface as you go, adjusting your planing angle as needed, and then lock in the angle with your hands and arms and push with your upper body. □

Online Extra

Learn how to tune up your block plane for optimal performance. To watch the video, go to FineWoodworking.com/extras.

Jeff Miller makes custom furniture and teaches woodworking in his Chicago shop. Go to furnituremaking.com for information.