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Seven Tasks for a Block Plane

Ramp up the range and impact
of this familiar tool

BY MIKE KORSAK

Some woodworkers think of the block plane as a lowly tool unfit for furniture making. Not me. The block plane may be one of the most versatile tools in my shop, and I use one almost every day. Just about every individual part in a piece of furniture I build gets kissed by this extraordinarily useful tool. Like others, I use the block plane to chamfer edges, creating light-catching facets that are soft on hands. But that's just the beginning. I'll outline seven other ways I rely on block planes to produce accurate and precise work. Perhaps next time you're about to tackle a process for which you'd never considered using a block plane, you'll give it a try. It might just be the best tool for the job.

Mike Korsak makes furniture in Pittsburgh, Pa.

1 Getting it flush

When I need to flush one surface to another, I typically reach for my block plane.

Unlike flushing methods that use a tablesaw or router, it requires no setup or preparation. My plane rack is next to my bench, so it's a matter of seconds to have plane in hand and flushing underway. You can use a smoothing plane for this, but I prefer the greater precision of the block plane, with its narrower blade.

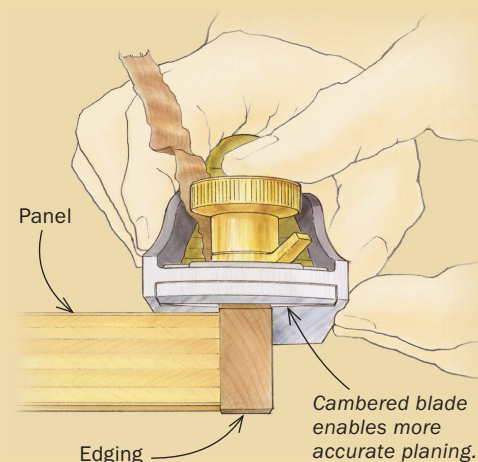
One trick to using a block plane when flushing surfaces is to use a cambered iron (see *Handwork*, p. 28). With the iron slightly cambered, just the middle two thirds or so will project below the sole. This lets you more accurately control just where you're cutting; for example, when planing edging flush to adjacent veneer, you'll be sure that only the edging is being cut.



Flushing in two steps. Korsak uses two block planes to flush solid edging to a veneered panel. Here he takes a series of coarse shavings with the first block plane, stopping when the edging is about $\frac{1}{64}$ in. proud of the panel.

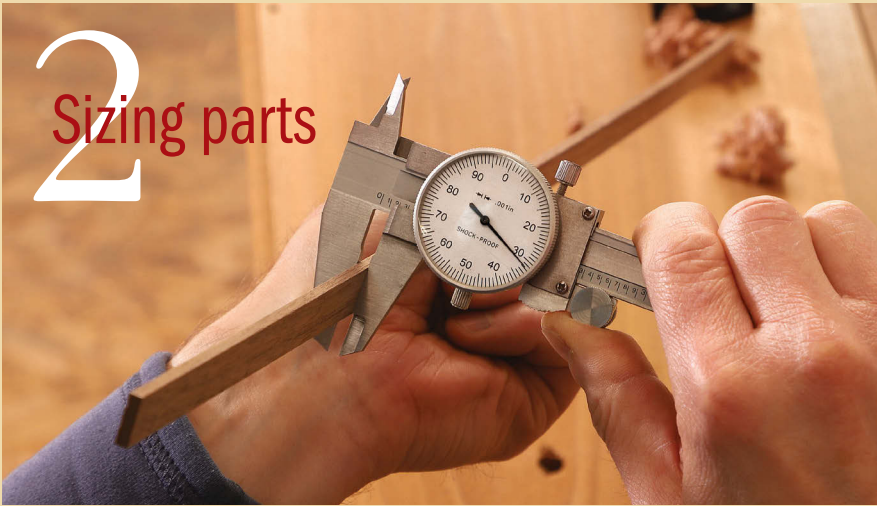


Final flushing. Using a second block plane, Korsak sets the cambered blade to take a very light cut (above) and finishes flushing the edging with several passes (left). The cambered blade lets him precisely focus the cut and avoid planing the adjacent veneer.



2

Sizing parts



Unplugged planer.

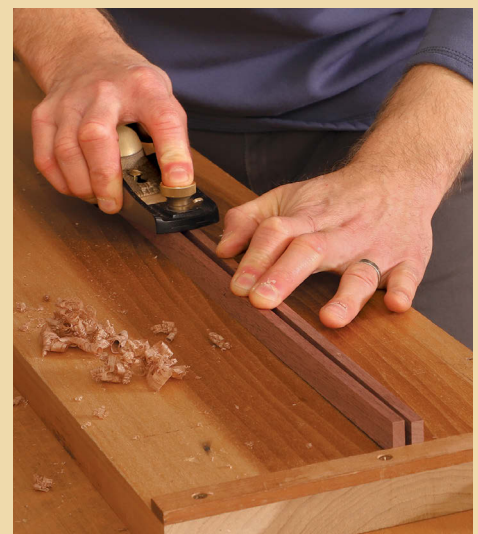
For accurate sizing of thin parts like splines, Korsak brings stock to rough thickness with a planer or bandsaw, then finishes with a block plane. He checks progress often with dial calipers. The plane is easily wielded with one hand, leaving his other hand free to pin the workpiece in place.



The block plane is very handy for milling small parts to accurate thickness. I use this technique when I'm making splines, for example. I cut the grooves first, and then mill the splines to fit. Instead of trying to hit the exact thickness on the planer, I leave the splines oversize and do final thickening with a block plane. If the spline stock is too thin to survive in the planer, I rip the stock to rough size on the bandsaw and then mill to final thickness with a block plane.

To plane the stock to final dimension, I work right on my bench or on a planing stop, holding the stock with my left hand while planing with my right. As I'm planing, I check the stock's thickness and parallelism in multiple places along its length with dial calipers to ensure that I'm working it consistently. The beauty in using a block plane for this task is that it's small enough to be comfortably held and easily controlled with only one hand—something that would be awkward or difficult with a larger plane.

You can even mill strips to width with a block plane. It can be a challenge to keep the plane balanced on narrow pieces, but that can easily be overcome by planing multiple pieces at once to give a wider bearing for the sole of the plane.



A bridge for balance. If one workpiece is too narrow to provide adequate support, Korsak planes two at once.

3 Smoothing

I often use my block plane as a smoothing plane. It is just as capable of making fine, fluffy shavings as a dedicated smoother. Because it can be operated with just one hand, the block plane is useful when smoothing parts that may be hard to hold down, or hard to reach. But even if parts can be easily held or clamped, I often reach for a block plane. I just prefer its smaller size and greater maneuverability.

I'm not relying on it here to eliminate major high spots or large discrepancies between surfaces, just preparing the surfaces for finish. A very sharp iron is key. This is the last time a tool will touch the wood, and the iron has to be as sharp as I can get it so there's absolutely no tearout. The iron should be cambered and set so just the middle two-thirds of the iron does the cutting.



A little smoother. With a razor-sharp cambered blade set for a fine cut, a block plane can prepare a surface for finishing every bit as well as a smoothing plane. Korsak uses a block plane for smaller surfaces and a smoothing plane for larger ones.



Fine tool for odd jobs. With its small size making one-handed operation easy, the block plane is handy for smoothing parts that are hard to clamp (left) and areas that are delicate or hard to reach (above).



Block plane fairs a curve. To smooth a convex curve, continuously adjust the angle of the sole so the area just ahead of the blade rides the workpiece during the whole cut. Some very shallow concave curves can also be smoothed with the block plane, provided it is held askew.

4 Working curves

The block plane is not often thought of as a tool used for shaping curved parts, but I find that it can be used to work convex surfaces and even slightly concave ones. The trick to working convex surfaces is to keep two points on the plane in contact with the curving stock: the iron itself (because if it's not making contact, nothing is being cut) and the area of the sole just in front of the iron. As the cut proceeds, the angle of the block plane must constantly change to maintain that contact. It takes some practice to be able to do this consistently, but when you have it down it works quite well. To work slightly concave shapes, I skew the plane significantly, shortening its effective length and allowing the sole to ride the curve of the stock while still taking a shaving.



Swap out the iron. Korsak likes a freshly sharpened high-angle iron for end grain.



Wax up. Unless the surface he's smoothing will be glued (like some miters), Korsak waxes the sole of his block plane before planing end grain to minimize friction.



Use a vise for a wide board. When planing the end grain of wide boards like this one, Korsak fixes them in a vise.

5 Planing end grain

The block plane is widely thought of as a tool used to work end grain, and I definitely use my block plane to do so. One way in which my approach differs from common practice is that I rarely use a shooting board. For most stock, I simply stand the board on edge on my bench, use my left hand to steady the stock, and plane the end grain in a downward motion. Sometimes I boost myself a bit higher by standing on the lower rung of a stool, but that's only necessary when planing the end of a wide board. If we're talking a really wide board, then I may stand it up vertically, clamp it in a bench vise, and work the end grain horizontally.

I also tend to follow this approach for mitered parts. As long as the end of the stock provides enough surface area for the sole of the block plane to bear on without being tippy, I skip jigs and fixtures and just hold the work on my bench. If I'm planing very small parts, however, I'll use a bench hook to make steadying the work easier.



Fairing a miter. Rather than using a clamp to hold a mitered workpiece, Korsak holds it on edge with one hand and planes with the other. He does the same to plane end grain on most square-cut boards, steadying them on one edge with one hand while planing in a downstroke with the other.



A hook helps with tiny parts. To smooth the end grain of very small workpieces, Korsak cradles the part in a bench hook and uses his block plane on its side.

Block plane a glue joint. With a thick sheet of shopsawn veneer elevated on a planing stop, Korsak joints the edge with a few swipes of his block plane.



Support for a sunburst. To joint the vulnerable point of a wedge-shaped piece of veneer, Korsak uses his left hand both to hold the veneer flat and to add support behind it with an MDF backer.



6 Edge-jointing veneer

When I'm joining pieces of veneer edge-to-edge, whether to make wider sheets of veneer or to create a composition, I generally use a block plane to joint the edges. I always use thick veneer, whether shopsawn or purchased, and the block plane does a great job of jointing it. Since I can very comfortably control a block plane with only one hand, my left is freed up to hold the veneer. This is especially helpful when jointing delicate pieces that need to be backed up to prevent flexing.

When jointing long edges of veneer I'll sometimes use a longer plane (like a No. 62 jack plane), but it's not essential. I find that I can joint long veneer edges with a block plane and easily achieve glue-ready joints.

7 Making tiny wedges

When I make door and drawer pulls, I secure them with a wedge. The wedges are strong, but tiny. They are an inch or so long, and their thickness tapers from about $\frac{1}{16}$ in. down to $\frac{1}{64}$ in. at the tip. I suppose they could be made (very carefully) by machine, but I find that they're easily and safely made by hand, using a block plane.

I start at the bandsaw with a scrap 4 in. or 5 in. long, and I slice off strips that are a bit over $\frac{1}{16}$ in. thick. To create the taper, I hold the block plane sole up and pull just the very end of the strip across the blade. After a few passes, a noticeable taper has developed. I gradually increase the length of the cut until I've achieved the taper I want. Then I cut off the tapered portion and repeat the process to make the next wedge.



Wedge work. After cutting a strip $\frac{1}{16}$ in. thick at the bandsaw, Korsak tapers one end of it by pulling it across the block plane's blade in a series of lengthening cuts.



Fitting the wedge. Test the fit of the wedge, then cut it to length and taper the next section of the strip. With the drawer pull in place, Korsak glues in the wedge (below).

