

TOP EDGE

Set the door on thin shims to size the gap at the top edge.

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Fitting an inset door

SYSTEMATIC APPROACH
YIELDS PERFECT RESULTS
EVERY TIME

BY STEVE LATTA

STRIKER STILE

Wait until the door is attached to bevel and fit this edge. Go for an even gap all around, slightly more than $\frac{1}{32}$ in.

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1

HINGE STILE

Start by removing some of the excess here.

2

BOTTOM EDGE

Holding the hinge stile tight to the cabinet, fit the bottom edge.

It is painful to see a student labor over a beautiful frame-and-panel door only to have it all go wrong when fitting it to the opening. Trim off too much, or trim it unevenly, and there are unsightly gaps all around.

If I catch the student in time, I demonstrate my foolproof approach to fitting an inset door. With basic skills, anyone can get a perfect-looking door every time. The trick is to build the door oversize and then fit it systematically, one edge at a time.

Before I build the door, I measure the width of the opening. Then I make the door $\frac{1}{8}$ in. bigger in all directions ($\frac{1}{4}$ in. overall). If the door is not square, or a rail is not quite flush with a stile along the outside edge, having a little extra makes these problems not so problematic.

It helps if the cabinet is resting plumb and level before you start the fitting process, so you are sure it isn't racked one way or the other. The easiest way to do this is to level up your bench and work off of it. Also, if the cabinet has a back that is intended to help square it up, go ahead and put it in.

Start by trimming the hinge stile

When I fit doors, I aim for a heavy $\frac{1}{32}$ -in. gap all around. To get there, I trim the edges one by one, in a specific sequence. After trimming each edge, I remove the sawmarks with a handplane or sanding block, taking off as little as possible.

With a door that's oversize by $\frac{1}{8}$ in. all around, begin by taking a light $\frac{1}{8}$ in. off the hinge stile—don't worry, you still have the amount of the gap to take off. The goal is to take about half of the excess off the hinge stile, and half of it off the opposite edge, called the striker stile. That way the two will end up looking even.

Fit the bottom and top edges

Now move to the bottom of the door. Using a crosscut sled on the tablesaw, trim a light $\frac{1}{8}$ in. off the bottom to clean up the edge. Again, the goal is to end up trimming close to the same amount off opposite edges of the door. If the slot through the base of your sled does not hug the blade closely, tack down a piece of $\frac{1}{4}$ -in.-thick MDF on the base and clamp a strip of $\frac{3}{4}$ -in.-thick MDF along the back. Then run the sled through the blade again to get nice zero-clearance slots in these fresh surfaces. These slots reduce tearout and also eliminate the guesswork as to where the cut will actually be.

It doesn't matter which side of the door you rest against the fence when trimming the bottom edge. However, the front of the door should be up, to prevent tearout on the show face.

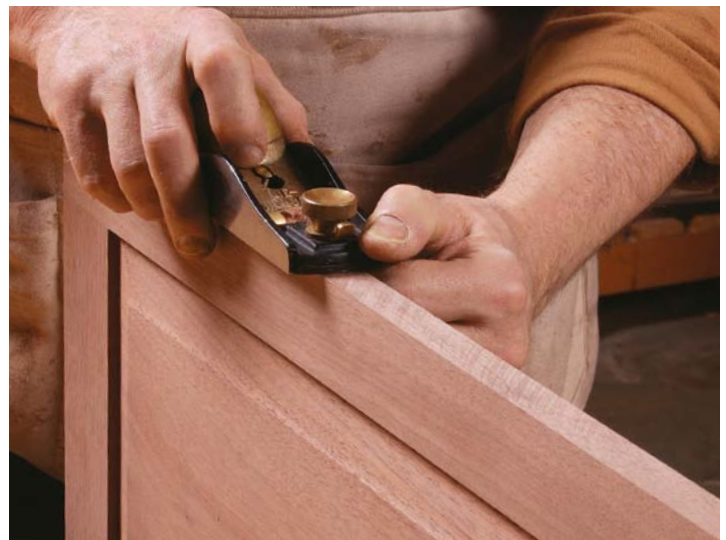
At this point, fit the two trimmed edges of the door—hinge side and bottom—against the mating edges of the opening,



Make the door oversize. In case your cabinet is out of square, make the door $\frac{1}{8}$ in. larger than the opening in every direction. Check exactly how much extra you have before beginning the fitting process.



First cut is the deepest. If the door opening is relatively square, take a full $\frac{1}{8}$ in. off the hinge stile now (left). If not, trim off less. Remove sawmarks with a handplane (below).



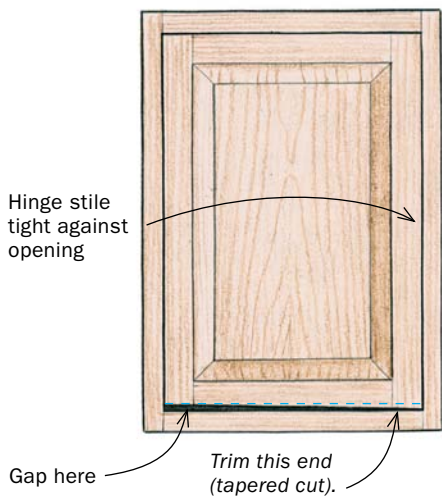
2

FIT THE BOTTOM EDGE

Clean up the edge first. Using a tablesaw sled, take off a light $\frac{1}{8}$ in. Latta puts clear tape on the ends and bottom edges of the stiles to prevent blowout on those end-grain areas.

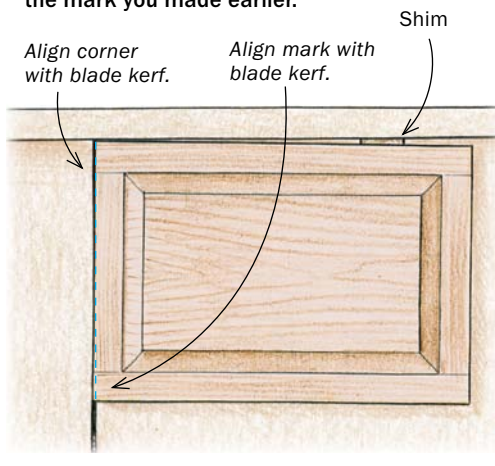
NOW CHECK FOR A GAP

Pull the door tight against the hinge side of the cabinet. If the bottom is a little crooked, mark the fat end for trimming. If not, just plane off the sawmarks.



SHIM THE SLED FOR A TAPERED CUT

With fresh MDF pieces on the base and fence of your sled, you'll get a zero-clearance blade slot, which makes it easy to set up a precise tapered cut. Place a shim against the fence, and use the blade kerf to line up the mark you made earlier.



paying particular attention to holding the hinge stile tight against the cabinet.

Correcting a tapered gap—If the opening is not perfectly square, a tapered gap will show up at the bottom and you'll need to make a corresponding tapered cut there. To do that, put one side of the door against the fence of the tablesaw sled, with a thin shim in between to angle the door slightly. The blade slots in the sled will help you place the shim and line up the cut precisely. Now just hold the door in that position while you make the cut. Afterward, recheck the fit to be sure the stile and bottom edge are tight to the opening.

Next, turn to the top edge. Start by setting the door partially in the opening to mark how much to remove, and see whether you need to make a tapered cut again. But this time, set the door on thin shims to create the gap you want at the bottom. Veneer works well. Mark the amount you'll need to take off to get the door to fit into the opening, and then cut off that





3 NOW THE TOP EDGE

Check it first. Hold the hinge stile tight to the cabinet again, but this time set the door on $\frac{1}{32}$ -in. shims to create the proper gap at the bottom.



Trim for a perfect fit. Take off just enough to get this edge into the cabinet, and then recheck the fit, with the shims at the bottom. If you find a tapered gap at the top of the door, use a shim to taper the next cut. Go for the same even, $\frac{1}{32}$ -in.-plus gap. Sand or plane off the sawmarks.

amount using the tablesaw sled until you have a nice, even $\frac{1}{32}$ -in. gap there, too.

You'll want to take a bit off the striker stile now, before hanging the door. Don't bother with shims. Just rip off enough to get the door to drop completely into the opening. Another $\frac{1}{8}$ in. should do it, with a bit of handplaning.

Hang the door and finish up

Now install the hinges (see "Flawless Hinges in Fine Furniture," p. 38). You should have the right gap on three sides, with just a bit to go

on the striker stile. Because of the way a door swings shut, you'll need to bevel the striker side slightly to get an accurate fit. The cool thing is that you can fit this edge with the door installed. Keep the angle at just 2° or 3° as you work toward another even gap a little over $\frac{1}{32}$ in. wide.

There are a few steps to this process, but none are hard, and the door will swing smoothly for life. □

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4 FINALLY, TRIM THE STRIKER STILE

Make a trimming cut. Rip off as much of the excess as you dare, while the door is still separate from the cabinet.



Install the hinges now. Be very careful when transferring the hinge locations from the door to the cabinet, so your gaps stay the same top and bottom.



BEVELED EDGE WON'T RUB

Because of the way a door swings, the striker side needs to be beveled a few degrees so it can close without rubbing yet still have a tight gap. Set the cabinet on its side and prop open the door to plane the striker stile. Latta drew on the edge with a crayon to keep track of this beveled cut.

