

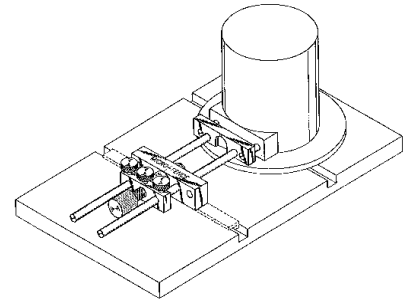
MICRO FENCE TECHNIQUES

There are many routing jobs that Micro Fence makes easier and more precise. Below are some examples of these jobs and the techniques we recommend for their execution.

I. Dadoes:

To cut any size dado, use the technique described in Example B on page 6. Make an initial cut with a bit smaller than the thickness of the stock you're working with, measure the first cut, then take a second pass after adjusting the fence to widen the first cut by the desired amount. Dadoes of virtually any width can be accomplished with this two-cut method.

- a. Parallel Dadoes: Fitting your Micro Fence with the Circle Jig Attachment allows you to rout any number of straight, parallel dadoes. First, attach the aluminum fence supplied with the Circle Jig to the bottom of either trammel bar. The aluminum fence is designed to reach down into the last cut you made, allowing you to make repetitive dadoes at equal spacing, (or at any spacing you choose).

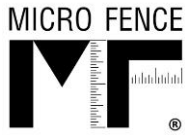


II. Rabbeting: Rabbet cuts can be accomplished with the same two-cut approach used for dadoes. Notching the deep profile wooden fence, (Fig.2, #18a), will let you use any portion of your router bit. Measure your first cut with the back end of your dial calipers and then dial the appropriate adjustment for any dimension you require.

III. Mortise and Tenons:

The Micro Fence can help you cut snug-fitting mortises using the same basic two-cut approach described above in the dado section.

- a. The tenon can be cut most efficiently on the table saw, making vertical and horizontal passes against the saw fence. Once it is cut, measure it with a dial caliper to determine its width and length.
- b. Draw a center line on the stock that is to receive the mortise and rest the tenon on it to mark the limits of the mortise cut using the tenon itself for your template.
- c. Using a multi-spur or Forstner bit in a drill press, drill along the center-line to clean out the majority of material from the mortise.
- d. Set your Micro Fence, with the deep-profile wooden fence installed, at an approximate distance a little shy of the finished tenon dimension and take a cut from each side of the stock. (The bit should be cutting on the far side of the mortise from where the wood fence is riding). This technique will automatically center the cut on your stock.
- e. Measure the result of these initial cuts with a dial caliper.



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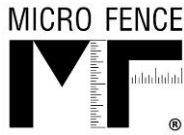
- f. Dial $\frac{1}{2}$ of the difference between the existing mortise and the size of the tenon you wish to accommodate, add $\frac{1}{2}$ of any clearance you'd like to have, and make your final cut. (We usually recommend approx. .010" clearance for glue joints in solid lumber. This may vary slightly depending on the species of wood you are working with...softer, more porous woods that respond more to atmospheric conditions might require slightly more clearance than the more dense hardwoods).

Note: Our **Off-Fence Mortising Kit** was designed to aid the mortising process, particularly those that require multiple passes. A frequently used technique is to take successively deeper cuts with a plunge router to achieve final depth of cut. This prevents over-stressing either cutter or router. Once the desired position of the mortise is determined using the above outlined method, our Off-Fence can be used opposite the Micro Fence Edge Guide to maintain cut registration.

IV. Mortises for Hinges:

- a. **Butt hinges:** First measure the width of the hinge leaf. Place the fence at an approximate setting with either the low or deep profile wooden fence face installed on the Micro Fence body. Measure the test cut, and then adjust the setting to accommodate the width of the leaf. Draw pencil lines on the door edge to show the length of the hinge. Once the recesses are cut, chisel out the radius corners left by your router bit with a sharp paring chisel.
- b. **SOSS Hinges:** This "invisible" hinge offers an attractive alternative to standard hinges, but has always presented some difficult challenges with its installation requirements. Two cuts of differing length and depth must be made on the same centerline. A first, deeper cut to house the body of the hinge is followed by a second, more shallow one to accept the face plate. The centerline for these cuts can be found by running one test cut at an approximate setting in scrap material the same thickness as your finished piece. Measure the material left on each side of your test cut and dial one half the difference between them in the appropriate direction.

Note: Our Stop Clamps were designed to provide physical limits to the cuts described here. The custom aluminum extrusion used for the bodies of these clamps provide a pocket through which our low-profile wooden fence will pass. This feature allows the router/trimmer sub-base to contact the clamps and provide a stop.



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If using the Stop Clamps, take an initial test cut to determine the distance from the edge of your machine's base to the edge of your cutter. Be sure to conduct this test on both sides...if the collet is at all off-center, this distance will vary from side to side.

The Stop Clamps are made in two sizes: the smaller has a throat spread from 0 to 1 3/16" (intended for cabinet and furniture doors and drawers); the larger from 1 1/8" to 2 3/8" (suited for entry door hinge and locksets or any larger work).

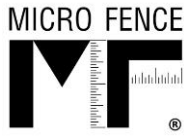
V. Mortising Locks:

Centering the mortise for a lock or strike plate can be easily accomplished by taking one test cut in material the same size as that of your actual piece. Measure the material left on either side of your cut and compare them. Dial one-half of their difference in the appropriate direction to position the bit precisely on the centerline of the work. Again the Stop Clamps are recommended to establish limits for the cuts.

VI. Fluting/Reeding:

- a. Three or Five Flute Groupings: Assuming your stock is straight and parallel, a centered flute is first routed, from which other cuts are referenced. On a piece of scrap material of the same width, run a test cut at approximate position. Measure the distance from the edge of your material to the edge of the cut flute on each side. Dial one-half the difference between these two measurements in the appropriate direction to center the cut. Successive flutes are placed using the same test cut principle, though your correcting cuts are no longer divided in half.
- b. Four Flute Groupings: Your first approximate setting is used to make cuts from each side of the work piece. This leaves a "land" in the center, which is the dimension you will match after re-setting the fence for the next two flutes. Do your test cut, and then dial the difference to the proper setting and run the "outboard" flutes.
- c. Note: Our Stop Collars can be used to "memorize" a cut position before resetting the fence to another position. Inlay Work:

Measure the inlay you wish to install. If its dimension doesn't match the diameter of a standard router bit, pick a bit of smaller dimension. After an initial inlay recess is cut, enlarge it with a second pass by dialing the desired dimension on the Micro Fence. We recommend a trial run in scrap material to insure desired results before doing the final installation in your actual project. (Allowing .002-.003 tolerance may prevent the inlay material from splitting or breakage during installation).



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TIP: *When installing inlay in curved or circular pieces when using the edge guide fitted with the half-rounds, always cut the inside radius first. This allows an element of insurance if the fence wanders away from the edge during the first pass. The second cut, after adjusting the fence outward, will clean up any irregularity.*

VII. Formica Trimming:

Don't believe that all "flush-trimming" router bits actually do cut perfectly flush...this is not the case. The guide bearings do not always perfectly align with the cutting edges of the bits.

Setting up your router with your bit flush to the front surface of our deep-profile wooden fence allows you to make "flush-trim" cuts, such as those needed to trim formica or wood veneer. Settings can be tested and adjusted in one-thousandth-of-an-inch increments for immaculate flush cuts.

These setups may require that the wooden fence be notched to allow the bit to be positioned inside it and to extend far enough below the sub-base of the router to cut through the thickness of the material you wish to trim. Each Micro Fence is designed with sufficient clearance between the router sub-base and the top of the fence to accommodate the thickness of plastic laminate. Two delrin spacers (1 ¼" or 1 ¾") are included with each edge guide to provide additional reach for this type of setup. (See Fig. 2, #19e).

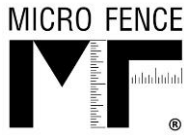
VIII. Circles:

Our Circle Jig Attachment accessory works in conjunction with our basic edge guide or can be purchased as a totally separate tool (called the Circle Jig Complete). The CJA simply slides on to the same guide shafts, (Fig. 1, #9), and provides a trammel pin from which to swing the router to perform radius cuts (a Vacuum Center is also available that eliminates the pilot holes).

The standard attachment provides capability for 6"- 48" diameters. Longer rods are available for diameters up to as large as 12 feet.

Given the measuring capability of the Micro Fence dial, mating radii become simple set-ups even when clearances are required for circular assemblies or inlays. A separate instruction booklet comes with each Circle Jig Attachment that more fully covers circle-cutting operations.

IX. Straight Edges – Edge Profiling: The deep profile wooden fence, (Fig.2, #18), can be installed with the extensions provided in your parts bag, (Fig.2, #'s 19d or e), to reach settings that "envelop" the router bit completely or in part. When completely enveloped, flush trimming can be accomplished, (see VII above). Partial enveloping of your bit will allow edge profiling for details like bevels, ogees or over-rounds. Setups can easily be accomplished to utilize any portion of a profile bit.



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X. Curved and Irregular Edges:

- a. Installing the half-round inserts (Fig.2, 19) provides two points of contact with your workpiece to allow your fence to follow curves.
- b. Using angled or curved fences to guide cuts: You can use the drilled and tapped holes on the end of the Micro Fence body, (#11a in Fig. 1, p.1), to attach any sort of attachment that you fabricate yourself. e.g. "V" shaped wooden fences to follow circles.

XI. Slotting and Veining: See VI above.

XII. "V" Grooves are frequently used in desk or table-top construction to separate solid wood surrounds from plywood center fields. "V" grooves allow different rates of expansion and contraction to occur without cracking finishes. As a design element they add a sense of depth to a surface or to separate contrasting woods for dramatic effect.

XIII. Sliding Dovetails:

Useful in the manufacture of table or drawer extension slides, these sliding joints can be made to whatever tolerances are necessary given the species of wood you're using. Hardwoods like maple or beech are popular choices. The control over tolerances that your Micro Fence provides can produce silky smooth travel. Test cuts and measurement of the pin or tail dimensions will tell you how far to move the fence on successive passes to produce the results you prefer. (As a bench-mark starting place, include approximately .015" clearance).