Make a Marking Knife Using a Swann Morton Blade



Custom Marking Knife Handles in Ipe and Cherry

A marking knife is an invaluable tool that should be in the toolbox of every woodworker. A good knife is capable of producing crisp and well-defined marks that are essential when laying out precision joinery and transferring measurements. Marks left by a marking knife can also locate and guide chisels and saws. While any number of commercially made knives can be purchased, making your own can be a satisfying project. A small batch of knives can be cranked out in an afternoon. You can make a few extras and pass them out to all your woodworking friends.

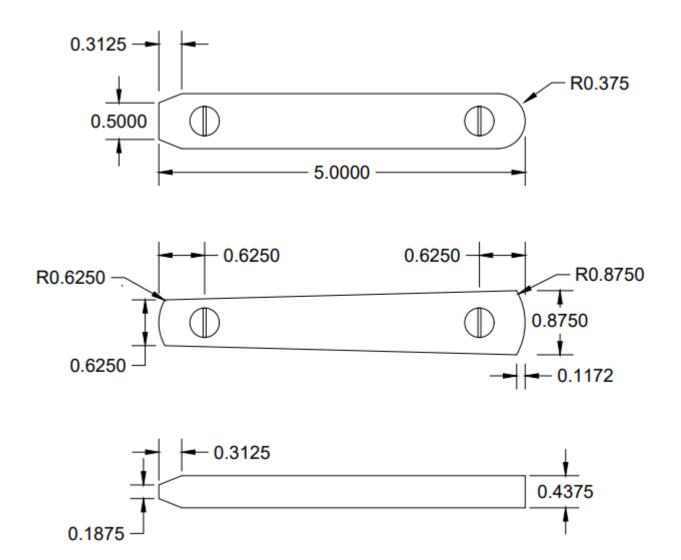
This marking knife kit uses a Swann Morton SM00 blade. These blades have the perfect shape, thickness and edge quality to make a versatile marking knife. The 1-3/8" long straight edge profile will reach into tight



corners, especially useful when laying out dovetails. The 0.0250" thick blade will track straight along a rule and not deflect. The dual bevel edge will mark lines on the right and left side of a guide. These blades are made by a scalpel manufacturer in Sheffield England and come razor sharp. This is the same blade used in the UK version of the ever-popular Stanley marking knife. These blades are cheap to replace, but can be easily resharpened. These blades are the perfect blade for a marking knife build. All you need to supply is a wood handle.

Making the wood handle is a good way to use up some of those small hardwood or exotic wood scraps you have lying around. The handle is made from two halves. The halves appear identical, but are different. One half has a shallow groove to house the blade and both halves have somewhat different hole configurations. Both halves are held together by 3/8" brass 10-32 screws and nuts. Each half is 7/32" thick. This thickness makes a knife that is relatively thin, coming in at 7/16" thick.

There are numerous handle design options. See below for two suggestions, but feel free to modify the shape to suit your personal preferences.



To get started, rip stock to the desired thickness and width and trim to 5" long. Route a 0.355" wide stopped channel in the center of one blank to accept the blade tongue. Make the channel just slightly deeper than the thickness of the blade. A 9 mm diameter router bit is the perfect size for this, or you could route in two passes using a 1/4" diameter bit. You could also cut a channel all the way through the blank using your table saw taking multiple passes.



When machining small parts such as these use double stick tape to attach a handle to the blank. This will keep your fingers clear of spinning bits/blades. Use the offcuts as test pieces to dial in the width for a perfect fitting groove.



The handle has two holes that accept the fasteners that 1) secure the blade in place and 2) keep both handle halves together. Each half has different hole configurations. One half has countersink holes to accept the flat head machine screws, and the other half has stepped holes to house the brass nuts. Drilling these holes and getting them in perfect alignment can be a challenge, but if you follow the drilling sequence outlined below you will have no problems.



Drilling sequence:

You will need a 3/16" diameter hole in the exact center of the shallow blade groove that is perfectly in line with hole in the blade tongue. This is much simpler if you use the blade as a template. Use blue tape to secure the blade in the bottom of the groove.



Mark the center of the hole with an awl. Don't worry if your mark is not in the perfect center as the twist drill bit will automatically center itself as it passes through the blade hole. Use a 3/16" twist or machine drill bit and drill the hole with the blade in place. Stop the hole just short of going through the back side. Note: DO NOT attempt to use a brad point or it could catch on the blade and very, very bad things could happen.



You now need to drill a pilot hole that will guide the countersink bit. Change bits to a 1/16" twist or machine drill bit. Allow the 1/16" bit to fall into the center of the 3/16" hole and drill all the way through the blank. If you hold the blank loosely this will happen all by itself. This 1/16" pilot hole will guide the countersink bit.



Flip the handle half over and drill the countersink. Drill the countersink just deep enough so the screw head is slightly recessed below the surface. Note: single flute deburring bits are the absolute best at producing the cleanest countersinks with the least chatter.



One half is now done. Next, stick both handle halves together with two-sided tape. Use the 3/16" bit to drill through the countersink hole stopping just shy of going through the opposite side. Use the 1/16" bit to drill a pilot hole through both halves.



Flip the handle over and use the 1/16" pilot hole as a guide to drill the stepped holes with a 3/8" Forstner bit. Drill the stepped holes slightly deeper than the thickness of the nut. Note: you must use a Forstner bit for this step and not a brad point bit. A Forstner bit will create a flat bottom hole that will not break through the back of the thin blank.





Drill bits needed: 3/16" twist bit, 1/16" twist bit, single flute deburring bit and 3/8" Forstner bit.

The hardest part is now done. Install the brass screws and nuts through the two holes and secure both halves together. Shape, sand and route the handle shape as desired. Router an edge profile with an 1/8" round over or small chamfer bit to soften the edges. Routing small pieces can be dangerous, so double stick tape a piece of 1/4" plywood with a hole in it over the router table opening to keep pieces from falling into the opening. Double stick tape a small handle to the blank to keep your fingers far from the spinning bit. Sand the flats on



the blank using 220 or 320 grit PSA sandpaper stuck to a piece of plywood. Sand all edges and profiles with 320 grit sandpaper. Carefully separate the halves by inserting a 1/4" chisel in the blade groove and gently twisting to release the double stick tape. Apply a few coats of your favorite finish. Your knife is now ready to put to use.

To change blades, remove one screw, rotate the halves and swap out the old blade.



Supplies:

Swann Morton marking knife kit with 5 blades and brass hardware available HERE
1/6" twist drill available HERE
3/16" twist drill available HERE
3/8" Forstner bit available HERE
9mm upcut HSS spiral router bit available HERE
1/4" upcut Carbide spiral router bit available HERE
Single flute deburring chatter proof counter sink available HERE
Double sided tape available HERE

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