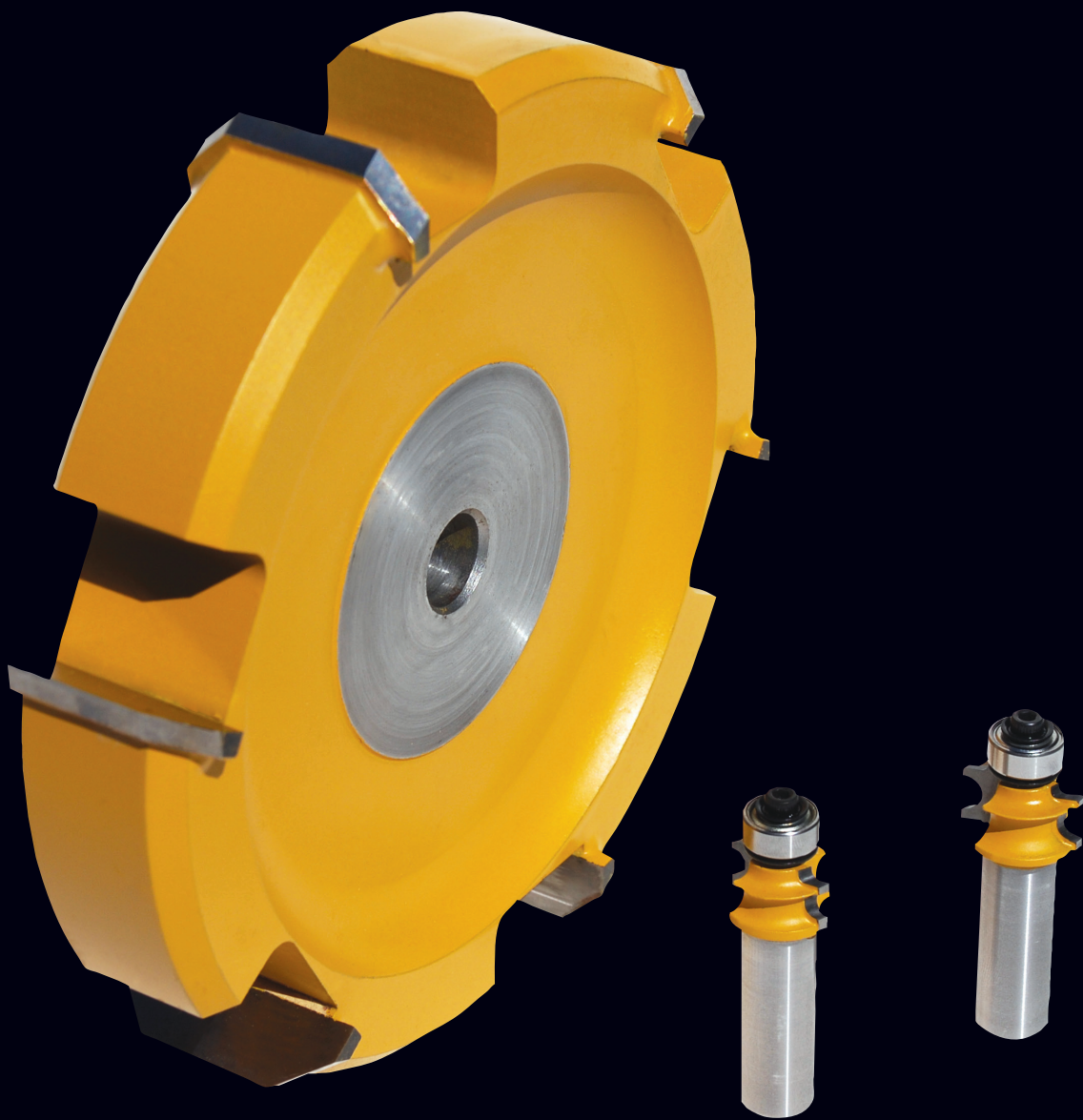


SOMMERFELD'S TOOLS

For Wood



SOMMERFELD'S Beaded Face Frame System Instruction Manual

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SOMMERFELD's Beaded Face Frame System Instructions

With Marc Sommerfeld's new Beaded Face Frame System, you can make beautiful face frames in minutes on your table saw.

Only the new Sommerfeld's Beaded Face Frame System allows you to create face frames on your table saw with minimal setup. The precision-machined cutter is engineered to provide precisely-fitted face frames every time! **Not made for small contractor saws. Table Saw arbor must be at least 1-3/8" long.**

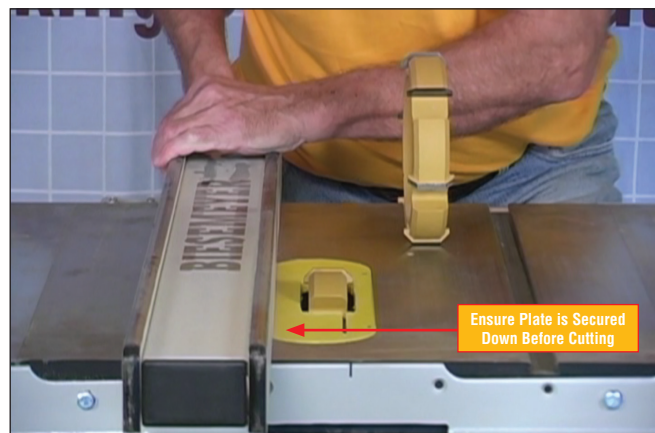


Make sure cutter rotates freely in table saw assembly. Use washers to eliminate cutter head from contacting saw castings.

STEP #1

Mount the beaded face frame cutter head on 1-3/8" table saw arbor. Hand rotate the cutter to make sure it does not contact the sides of the table castings. (**WARNING: Failure to follow these instructions could damage the cutter head, saw or cause personal injury. Please follow all safety information found in your owner's manual when using any power tools.**)

If the cutter does not rotate freely, simply add washers/shims to allow enough clearance for the cutter head to rotate freely. If you cannot add enough washers/shims to allow the head to rotate freely, please verify the saw meets the minimum requirements for this tool.

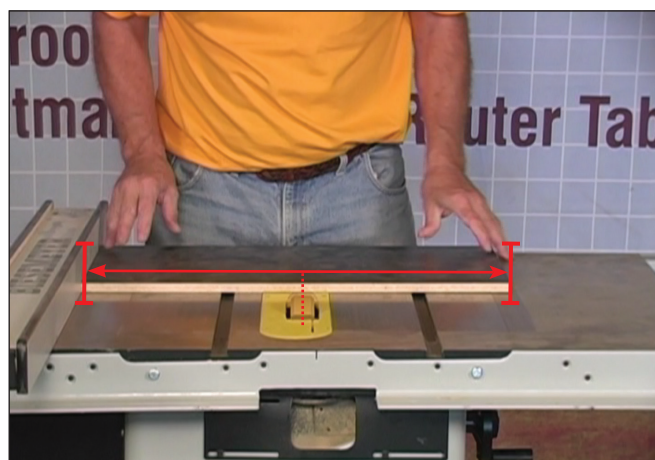


Make sure the throat plate is properly secured down to the table saw top before making the cutter slot.

Create The Throat Plate

STEP #2

Cut a throat plate to the proper dimensions for your saw from a soft HTPE plastic or hardwood. Next, make sure your cutter is lowered below the table surface, then securely clamp down the throat plate, and slowly plow out the opening for the face frame cutter by slowly raising the cutter head in the saw. Alternatively, you can use a jigsaw to create the opening. The opening does not have to be a zero clearance fit.

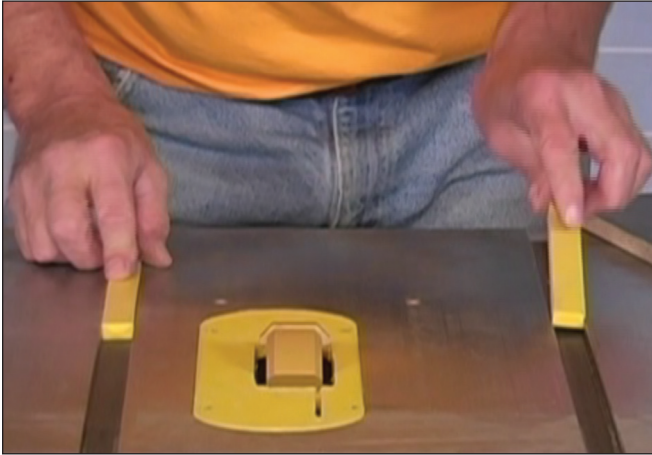


Creating The Sled

STEP #3

Use a piece of 1/2" or 3/4" HTPE plastic, melamine or flat plywood. Cut a one foot by two foot sled base from the material making sure it is square. Next, align the base so that the center of the material is exactly center on the cutter head. Use the fence and tracks to create a square edge.

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STEP #4

You can purchase miter tracks, or make them yourself. If you create your own, rather than making them flush with the top, make them just shallower than the depth to allow the sled to slide freely.



Drill holes in all four corners to attach the miter tracks to the base

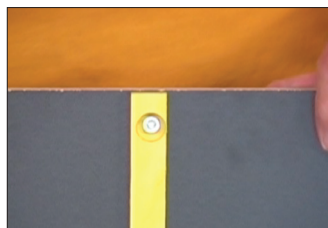
STEP #5

Attach the base to the miter tracks. Marc suggests using a bolt and nut counter sunk from the bottom side. This will ensure smooth operation of the sled.



Use a Forstner bit to drill out the miter track to counter sink the bolt

Attach the bolt and nut into the hole and tighten

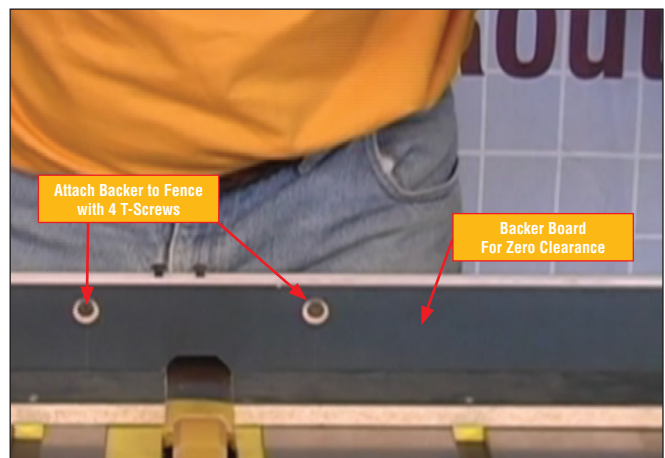
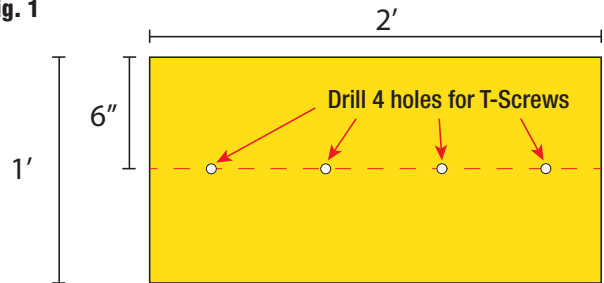


Attaching The Sled Fence

STEP #6

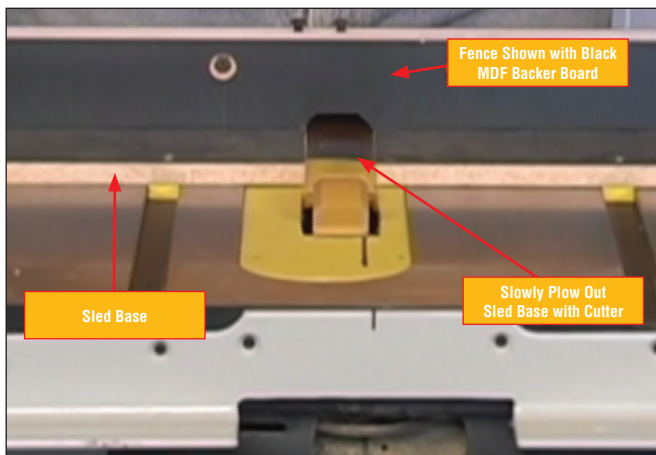
Drill 4 holes in the base along the center line, (**Fig. 1**) then attach the fence to the base using the (4) T-Screws provided and slide them into the T-tracks of the fence.

Fig. 1



STEP #7

Cut a piece of hardwood, melamine or plastic to create a zero clearance backer board the same dimensions as the fence. Drill 4 holes to attach the 4 T-Screws to the fence. Attach the backer board to the fence and secure all screws.



STEP #8

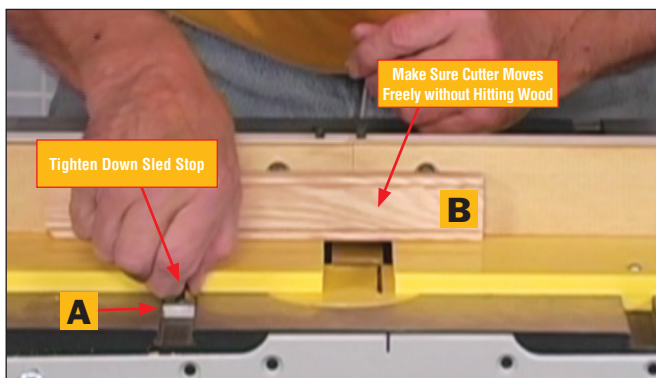
Slowly plow out the sled base with the cutter in two or three passes. **Important Safety Note:** The cutter should not be any higher than 5/16" above the top of the sled base for the large bead, and 1/4" above the top of the sled base for the small bead. If you are higher, the cutter could contact the metal fence.



Setting Up The Sled On The Table Saw

STEP #9

Slowly plow out the channel for the cutter on the sled until it clears the back of the fence.



STEP #10

A sled stop, (A) included with the extruded fence, is used to limit the sled from moving too far forward.

Use a piece of wood to determine where these stops should be placed in the miter tracks. When the cutter moves freely and does not contact the wood (B) block, you know the sled stop can be positioned safely.



STEP #11

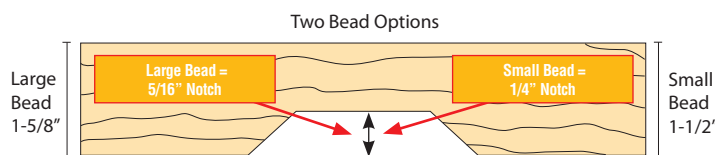
Safety Note: Marc recommends screwing a piece of material on the back side of the fence behind the cutter channel, so that the blades are never exposed during the cutting operations.

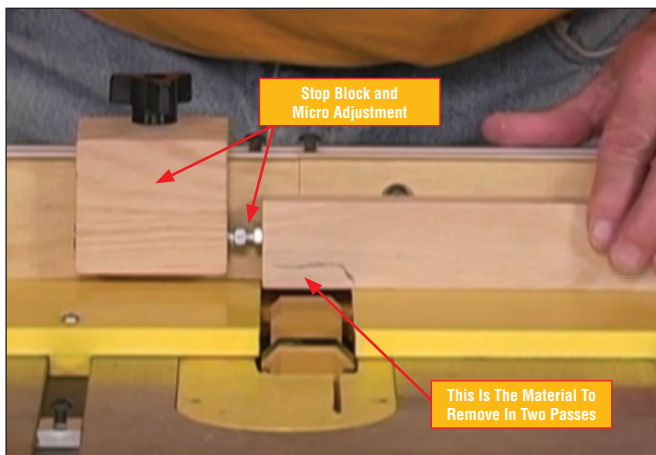


Cutting The Notches

STEP #12

Important Note: Proper measuring is vital to ensure a tight finished joint. When using the **large bead** on a face frame, it is critical that the material width is exactly **1-5/8"** wide. If you are using the **small bead**, the material width must be exactly **1-1/2"**.





STEP #13

Measure out the length of your stiles as determined by your particular project. Once this is done, cut the notches at the top and bottom. Set a stop and set the micro adjustment for consistent repeatability.

STEP #14

Next, make the end cuts. To do this simply cut a notch, (**Fig. 1**) so that the edge of the cutter lines up exactly with the end of the stile. Then, clean out the end of the notch (**Fig. 2**) by moving the stile over to remove the excess wood at the end.

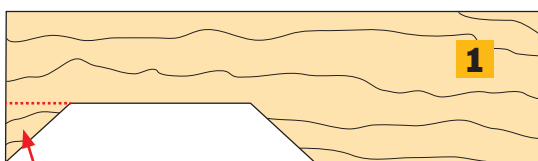


Pass 1 - Cut a notch on the stile end.

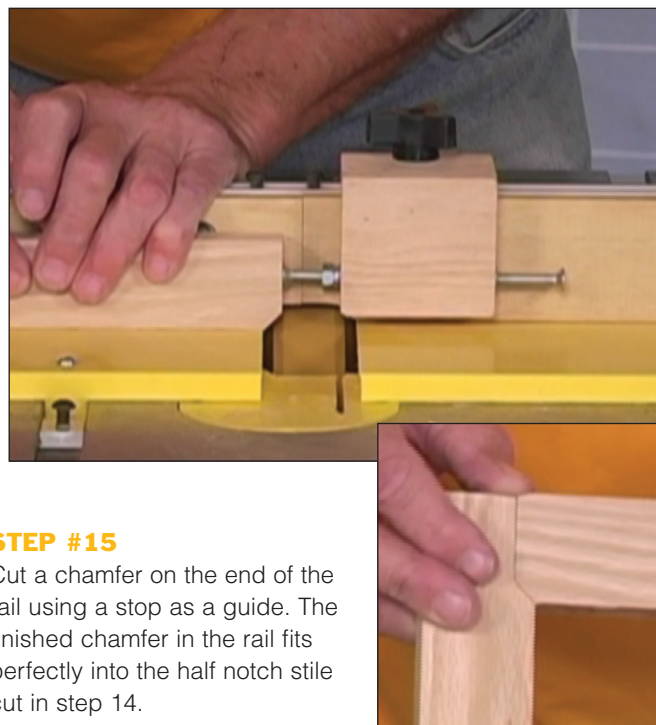
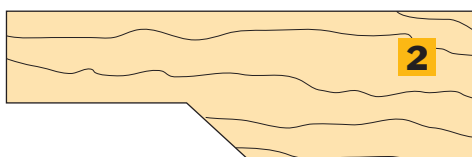


Pass 2 - Clean out the side of the notch.

Stile End with Notch Cut

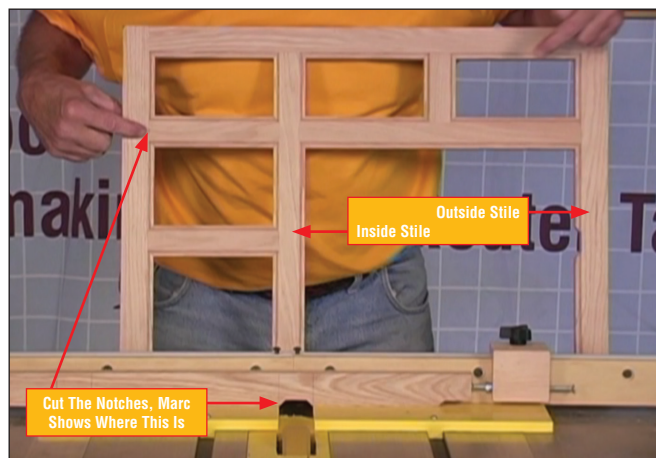


Clean Out Notch End



STEP #15

Cut a chamfer on the end of the rail using a stop as a guide. The finished chamfer in the rail fits perfectly into the half notch stile cut in step 14.

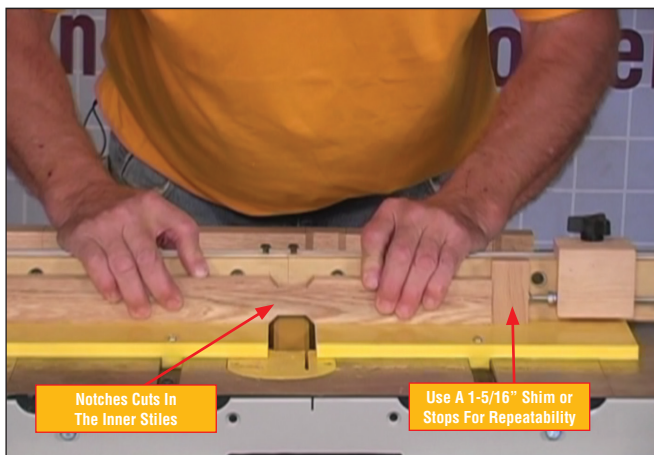


STEP #16

Next, cut the notches on the outside stiles. Then cut the inside stile notches. **Important Note:** Make sure the inside stiles are cut shorter than the outside stiles.

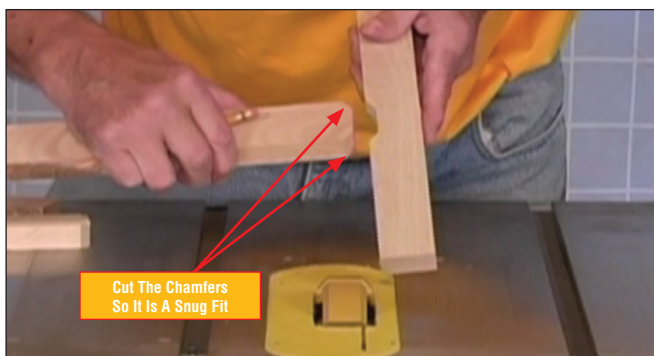
In our case, the inside stiles would be 3 -1/4" shorter than the outside stiles. ($1-5/8" + 1-5/8" = 3 -1/4"$) You must also add 5/16" for both tenons. The equation would then be $3-1/4" + 5/8" = 3-7/8"$. So make the inside stile shorter 3-7/8" for a proper fit.

Once you have the stiles set up, use flip stops or shims to allow for quicker repeatability.



STEP #17

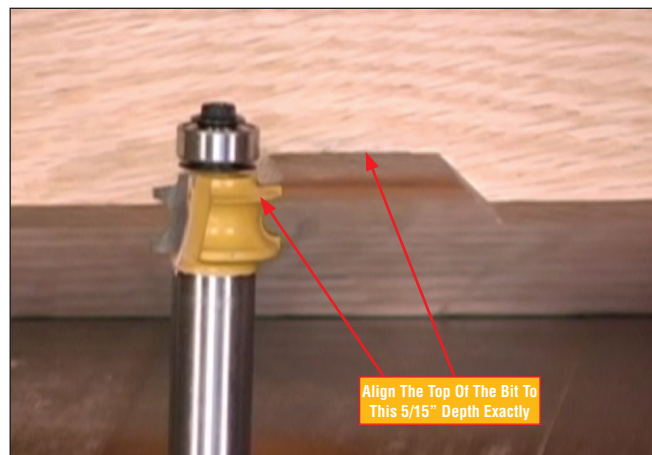
Next, cut the notches on the inner stiles using a shim, block or flip stops to allow for the 1-5/16" material where the stile tenons connect to the rail.



Once you measure where all of your notches need to be positioned based on your drawer configuration, you can use the setup above to quickly cut all of the notches in quick succession using the stop blocks.

When cutting the chamfers, make sure the chamfers are cut at 5/16" of inch deep. This may require some test cuts to achieve the desired result.

Important Note: Make sure when you cut the chamfers they fit securely. It should not be too loose or too tight.



Setting The Beaded Bit

STEP #18

When setting up the bead, make sure you align the tip of the bit to cut exactly 5/16" depth.



Attaching The Face Frames

STEP #19

The next step is to securely attach the face frames. To do this, we recommend using the Sommerfeld 3-In-1 Pocket Cutter. This will allow you to create perfect pocket holes every time.



Cabinetmaking Made Easy



Beautiful cabinetry doesn't have to be difficult. From face frame to hardware installation, Marc covers it all! Marc Sommerfeld's Tongue & Groove Cabinetmaking System combines the best of Old World joinery with the advantages of New World tooling. The result is a system that will make every joint - and every project - faster, stronger and more accurate. DVD length 105 minutes.

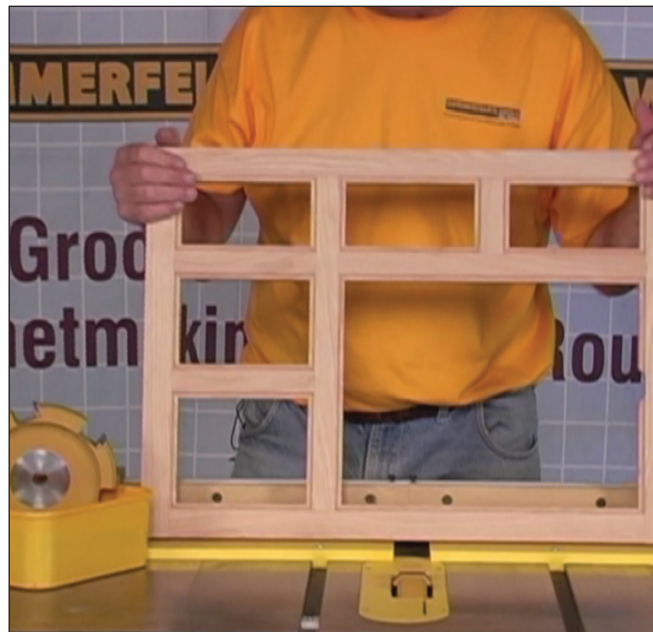
DVD4 Cabinetmaking Made Easy DVD \$9.90

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STEP #20

Use a clamp to secure the joint while gluing, then screwing in either 1-1/4" or 1-1/2" screws.



STEP #21

Lastly, secure all the components to create a beautiful face frame. Keep all your previous set ups to quickly repeat the process, saving time and effort on your other face frames.

Sommerfeld's 3-In-1 Pocket Cutter System

All die-cast aluminum construction - No plastic parts

Pocket Hole Joinery has been in the woodworking industry for over 20 years. Pocket hole joints are amazingly fast, incredibly strong and have hundreds of applications. The 3-in-1 Pocket Cutter from Sommerfeld's goes back to the basics - back to heavy-duty construction - back to simple functionality!

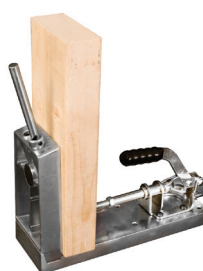
This jig can be used by beginners or professionals alike. With the large, powerful toggle clamp, placing and holding your stock firmly in position couldn't be easier. The jig also comes with two separate drill guides that can be easily swapped out for different thicknesses of stock - the small guide works with 3/4" stock and the large guide works with 1-1/2" stock.

Each guide has hardened steel bushings with a lifetime warranty against wearing. Each drill guide incorporates a rare earth magnet for attaching the drill guide to a clamp for portable pocket hole joinery.

3 Ways To Use...



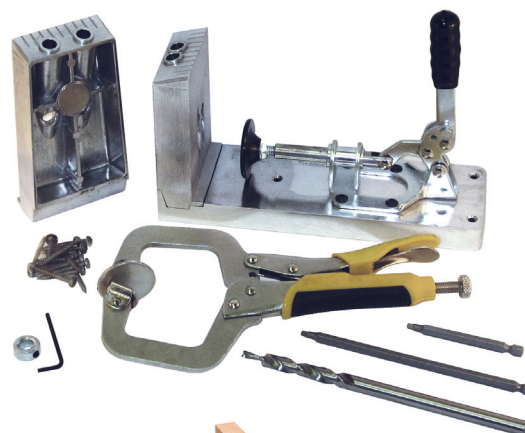
3/4" Stock



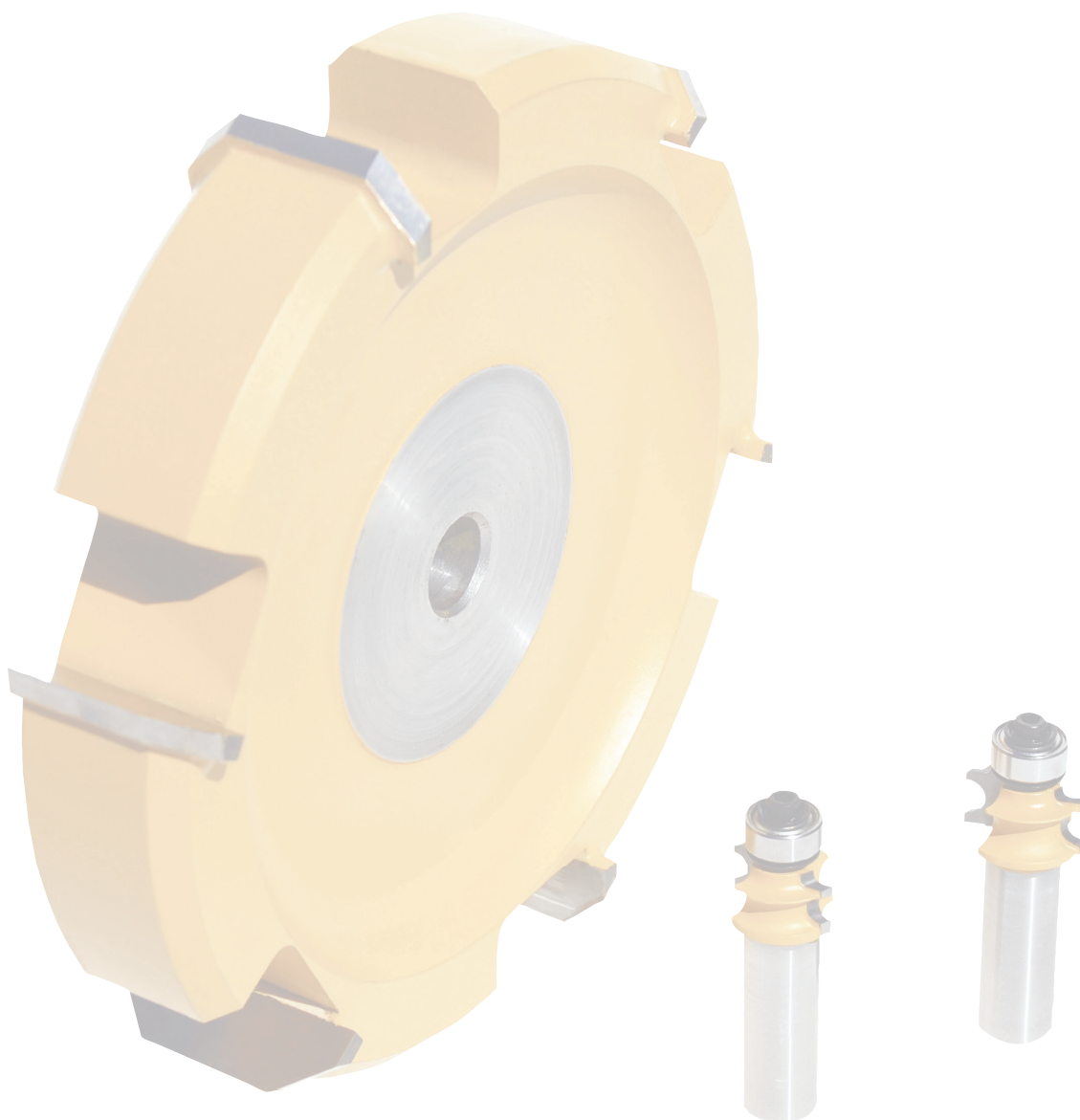
1-1/2" Stock



Portable Use



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1408 Celebrity Road
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