



## Shop-Made 1½"-dia. O.D. Template Guide

Scott Grove's method for making the complementary offset templates used to create the Flag Cutting Board requires a ½"-diameter straight bit and a 1½"-O.D. template guide. This guide is commercially available, but if you want save a little money, or if your router base doesn't accommodate a 1¾"-diameter (PC-style) template guide, you can make a 1½"-O.D. bushing that can be paired with any 1"-O.D. guide. To do this, all you need is a drill press, a disc sander, and a few scraps of wood and MDF.

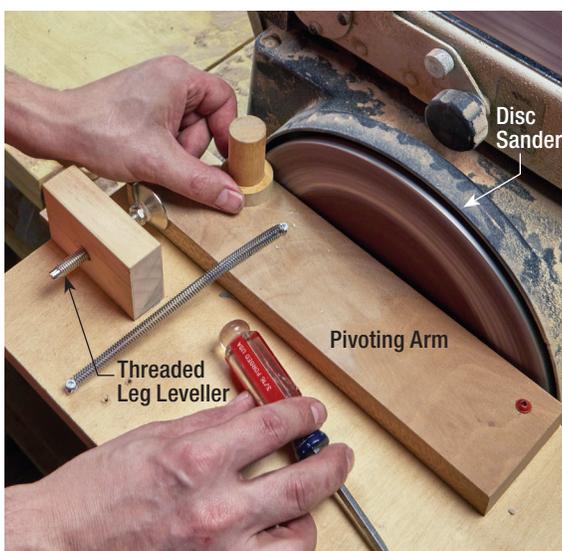


**Step 1:** Secure a strip of ½" MDF (about 2¼" wide and approximately 10" long) to your drill press table. Drill a 1"-diameter hole, as shown.



**Step 2:** Without moving the table or workpiece, replace the 1" Forstner with a hole saw. A 2"-diameter hole saw is shown here, but the actual size isn't important as long as the diameter of the cutout is larger than 1½". (*Note: Without proper guidance, hole saws tend to wobble when making a cut. To keep the saw on track, cut a short piece from a 1"-diameter dowel, and use it to temporarily stop the hole in your MDF strip.*)

After sawing through the strip, remove the hole saw and pop out the plug. Repeat this drilling and sawing sequence a few more times. If you happen to over-sand a disc during the next step, it's nice to have a spare handy.



**Step 3:** The object is to sand the disc to precisely 1½". You can accomplish this with any jig that offers a pivot point and keeps your finger away from the abrasive, but it's easy to overdo it. If you're looking for a reliable way to sneak up on the exact diameter, check out this jig made from a few pieces of wood and scavenged hardware. The foot leveller works as a threaded advancement mechanism. To use, set the pivot arm so that the oversized disc is clear of the abrasive, then switch the sander on. Gradually advance the leveller's adjustment screw and spin the workpiece until you reach your desired dimension.

After sanding, finish the outer edges of the MDF with a light coating of cyanoacrylate (CA) glue. The CA coating toughens up the MDF, and extends the service life of your shop-made bushing. (Your MDF bushing should fit snugly on the brass guide, but if it starts to slip, you can tack it in place with a tiny dab of CA.)

