

# How to make big, long columns with only a router and stuff you have laying around

by Don Butler

Has it ever occurred to you to wonder how to make a wooden column? A big one like a porch column? The first thing that springs to mind is a monster lathe, right?

The point of this tip is to show that it can be done with far less machinery than you might think.

How are big columns made? They are usually held between centers and spun while cutting tools remove waste. How can you accomplish the task by other means? Well, you'd need some way to hold the stock 'on center', but do you need to spin it? Not if the cutting tool will work on material that's standing still. HMMMmmmm.

"Oh! I know! That's a router!", he said enthusiastically. (Everybody now acts surprised that I'd come to that conclusion.)

So what's needed is simply a means of fixing the work between two solid points and two rails of any sort to guide a router back and forth over the length of the wood until it is shaped to the desired dimensions.

So one of the things that would be very important is rigidity. You wouldn't want the work centers moving or the rails to flex during the operation. A long time ago I made my first big 'router lathe' out of plywood gussets and 2x4 rails. It worked well enough, but let's think about how else we could get there. One way is to make use of exposed studs in your shop or garage.

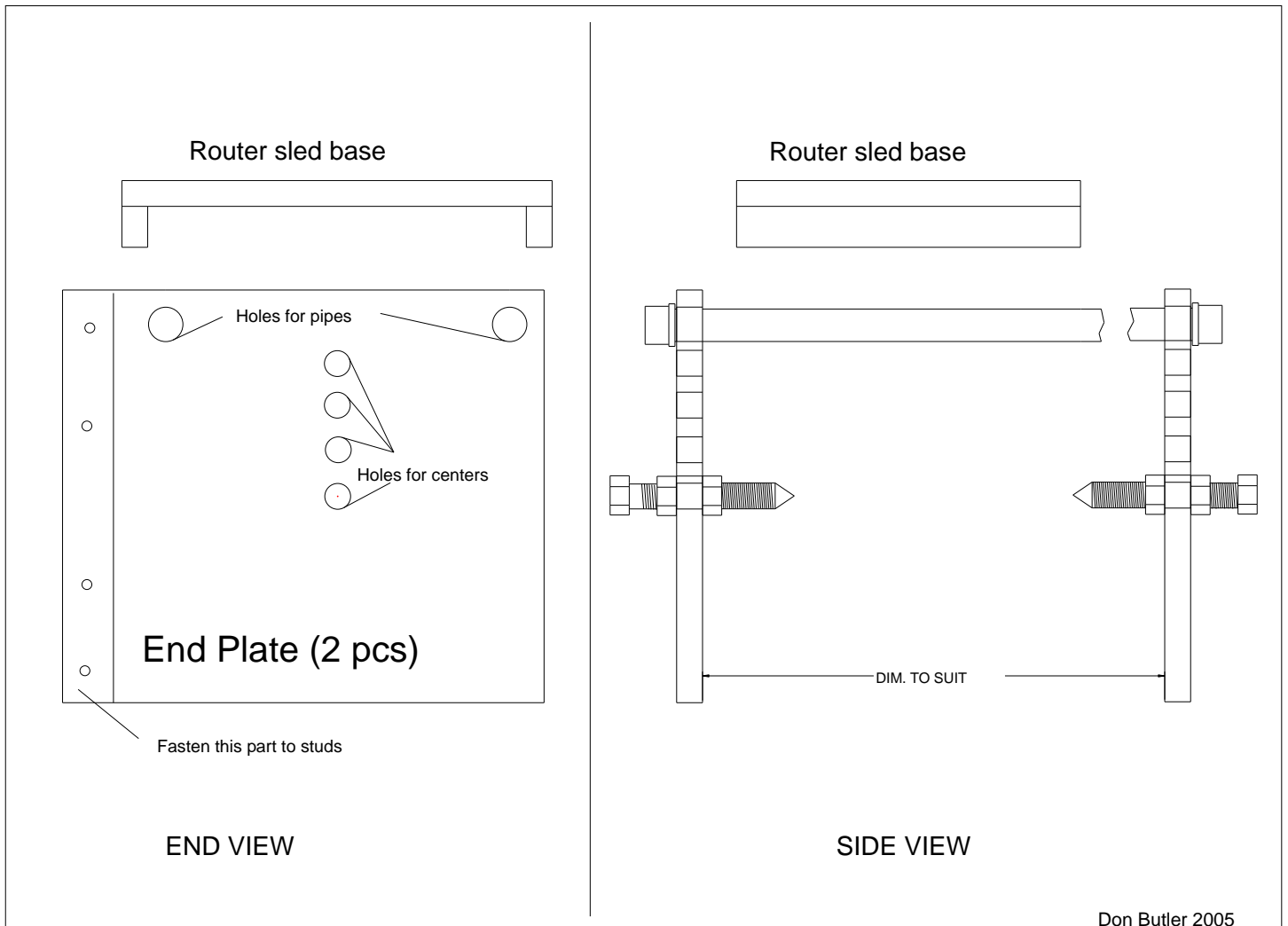
If you made reinforced plywood panels for the end pieces where the center points would be, you could use screws or lags to fasten them to the studs. Figure how long you want the columns to be and screw 'em up there at a convenient work height. Then you only need the center points and rails. What I used were 3/4" coarse thread bolts with jam nuts and washers. The ends were ground to a not-so-sharp point. That's all, really.

Now for a couple of steady rails. You could use 2x4s, as I did, if you could get them straight and long enough. You could make rails by laminating plywood, too. How about metal rails like pipes or angle irons? Use your imagination and determine your resources. You'll figure it out.

What's left? An accessory router base that would keep the router in line with the work. What you make will be determined by the material for the rails. Make it out of plywood, acrylic, phenolic, aluminum or even steel. Again, what you have available or can afford is what's right for you.

Finally, there's adjustment for diameter. Of course the most fundamental adjustment is in your router, simply controlling how deep it cuts, but for coarse adjustments, drill additional holes higher or lower for the centering points. If a taper is desired, make one end higher than the other. The concept is simplicity and adaptability. Use what you have and concentrate on the results, not the machine.

Page two shows one way this toll can be built.



This setup as shown is scaled with end plates 12" high and 3/4" pipes. The center pins are 3/4" coarse bolts with the ends ground to points.

Care should be taken to make the pipes a good fit, even if large washers need to be used because they are what keeps the end plates from bending when the center points (I hesitate to call them drive centers) are adjusted to the workpiece. If the pipes are long they'll need center support because they're heavy. The router will, in that case produce a round with a smaller I.D. in the middle.

The router is adapted to the sled shown above and the assembly straddles the pipes.

Don't get stuck in the details of the drawing here. This can be done in many ways. The one I built years ago was free standing. It was huge, but I made it so it could be taken apart for storage.

One final note: Technically, a lathe spins the workpiece while cutters are used to cut it. This tool should properly be called a jig because it holds both the work and the tools, but doesn't turn the work.

Now you know everything I do.