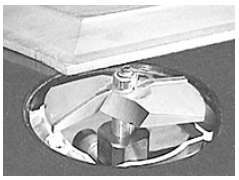
Big Bits, Small Bases

How to use a bit that's bigger than the opening in your router base

Q I've read in your catalog that I can make raised panels with your big routers, but I saw a magazine article that said none of the models you sell have a bit opening big enough to fit the 3-1/2" bit I want to use. Do you actually have a router that can handle a bit that big?

A In fact, all of our big variable-speed routers (12 amps & up) can handle the 3-1/2" bit you want to use. In one sense, the magazine article was right: a big bit won't fit through a small hole. When you put a panel-raising bit to work, however, you'll discover at once that the opening in the router base casting doesn't matter at all. It's the opening in your router table top that counts, because that's where the bit actually lives and works. If you mount your router on a drop-in base 1/4" to 3/8" thick, the bit never needs to be lowered far enough to touch the router base casting. In most cases it doesn't need to be lowered at all.



Panel raising bits generally have only a little more carbide height than the minimum needed to complete their profiles in 5/8" or 3/4" wood, so if you can house the bit as much as 1/8" deep within the table opening, you're ready to make straight raised panels. A very efficient way to work is to set the bit to its final depth of cut, then pull the fence 1/2" or so forward of the bit's ball bearing guide, thus limiting the first-pass load on the router just as effectively as setting a shallower depth of cut. Push the fence back flush with the bearing to complete the job.

Even when you do want to set intermediate depth for a first pass, such as when cutting panels with curved edges (when you can't use your fence to limit the width of cut), it's no problem. Setting the bit 1/4" to 5/16" deep within the insert opening allows a perfectly reasonable first pass. I've run 3-1/2" bits in routers with 2-5/8" base openings for many years, producing both straight & curved panels with no trouble at all. I use our RM3509 table insert, whose 3/8" thickness is more than enough to handle any of the horizontal raised panel bits in our inventory.

So go ahead and order that big DeWalt or Porter-Cable plunge router with no worries about getting the job done. Don't forget to pick up a rail & stile set to go along with your panel raiser, too.

Zach Etheridge