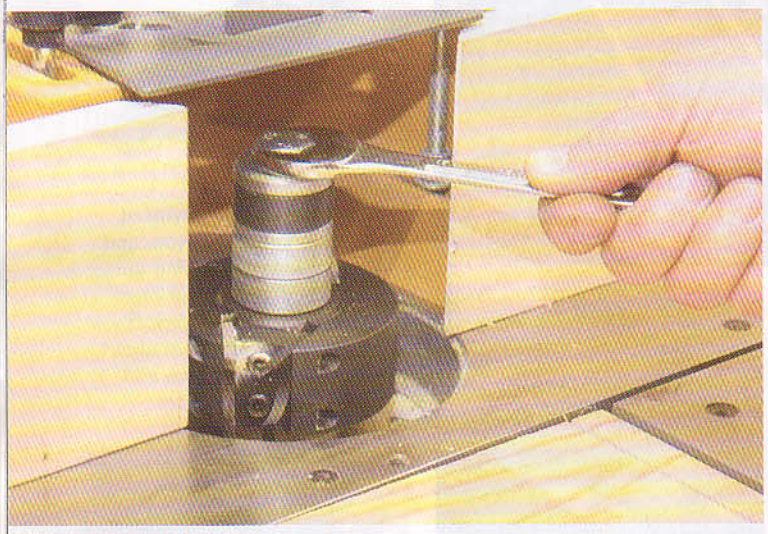
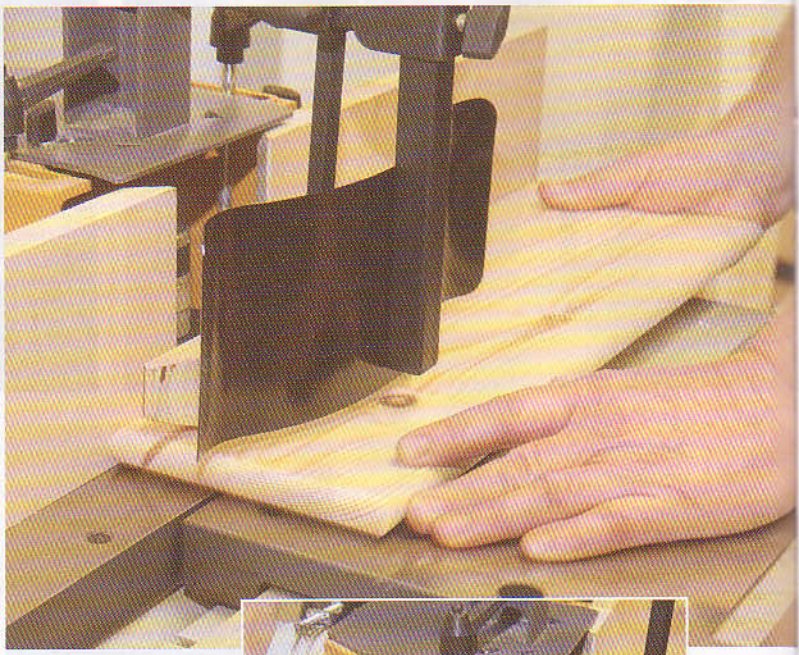
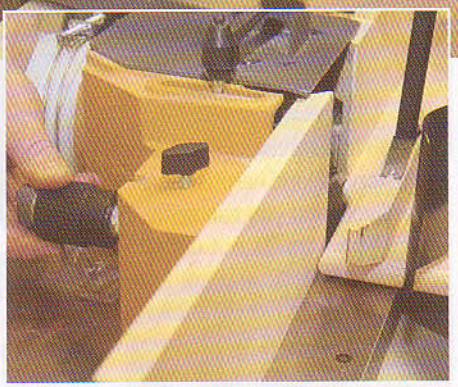
Charnwood W030

Is it time to replace your router table with a spindle moulder? Is it Charnwood time?







Adjustable The W030 is a solid cast iron type of spindle moulder, with 80mm of stroke on the spindle. You can adjust the outfeed fence (right) to compensate for waste removed

Mark Porter, the owner of Sliding Sash Windows, from Wootton-under-Edge, came round to our workshop recently to have a look at Charnwood's W030 spindle moulder. He has bigger kit than this to make windows and doors, notably a dedicated tenoner and a four-sider, which can machine each side in one pass. We were looking to him to offer some guidance on the machine's possible long-term opportunities and limitations, while we would be judging how it rates as a step-up from a router table.

Woodworkers consider the decision to take on a spindle moulder as significant, perhaps because they are quite scary and require good extraction. We wanted to see how serious you needs to be to buy one. There's not much to a spindle moulder in reality, just an arbor poking through a table, on which you slot a cutterblock. There are washers and spacers, and a bolt on the top, to hold the cutterblock in place.

These days the cutterblocks themselves are much safer. The most common design is known as a Euro block, with a 30mm bore in our case. A block will take two cutters and two limiters, the latter acting as a shield so that finger can't be pulled into the cutter if you get too close. These are held in a dovetailed slot, with a wedge pulling them tight. Until quite recently that was all you needed, and the cutters could be angled to form slightly different effects. Euro regs now stipulate the blades and limiters must also be held with pins so that they cannot be twisted and can't fly off across the workshop, which has been known to happen. This means that creative spindle moulder operators have to buy more cutters, or purchase a machine with a tilting arbor to get more from your selection.

The Charnwood W030 is a fixed arbor machine, as are other entry-level spindles, from Fox and Metabo, and it costs about £600. So why should a woodworker abandon their collection of router cutters and start looking at spindle moulders?

Actually, the chances are you'll always need a router table, which are unbeatable for quick, small jobs. Their limitation, when compared with a spindle (which is what the pros call them; Americans call them shapers), is that you can only remove a relatively small amount of material in one pass. Router cutters don't have the umph to cut away large rebates or to form tenons, and normally any such operation has to be done in steps, which is slow and can introduce inaccuracy.

With a spindle moulder you set it up once for any particular cut, with the appropriate cutters in the block, and away you go. By using jigs you can shape components and cut joints with only the roughest of cutting out beforehand. The trick with a spindle is to learn how to make simple jigs.

Jigs on spindle moulders work just as they do for router tables. They tend to run against the fence for a straight cut, or against a ring fence for shaping. The ring fence sits above or

Chippings **A spindle moulder produces much more chippings than a router table, but the combination of 100mm port on the fence, and the Fox extractor make it pretty much dust-free. You can buy special cutters for tenons, or just cut two rebates**

below the cutterblock and acts like the bearing on a router cutter. It is a bit disappointing that the Charnwood spindle isn't supplied with a ring fence (Steve Maskery has made his own for a router table this issue, p.58), and it's not an option they offer.

The W030 does have a sliding table, though, which makes it perfect for cutting tenons. You can cut the tenon by putting a straight cutter in the block and then 'rebate' the workpiece top and bottom to create the tenon. This is the way we did it, and were able to produce a superbly accurate tenon in a few minutes, without much tear-out.

You will need a heavy-duty extractor to remove the large quantity of chippings. We fixed the Charnwood spindle to a Fox F50-842 extractor, and pretty much everything was removed. It's far more effective than most router tables in that way, with the big extraction port on the cast iron fence unit. Both the extractor and the spindle are surprisingly quiet, which is another huge advantage over a router. The fence is pretty good on the Charnwood, too, with micro-adjustment on each fence, so that you can position the outfeed forward to account for what you've removed in shaping.

Mark considers it powerful enough for small-scale joinery and furnituremaking, and it certainly dealt well with the rebating, tenoning and moulding we threw at it. But to make the leap from a router table you do really need to be doing a fair amount of joinery work, with heavy mouldings and lots of tenons, and/or shaping components often to make the jump up worthwhile. Take that plunge, though, and you'll almost certainly take your woodworking to a new level.

Specs & Details

1500w motor; 4500 or 6500rpm; 80mm vertical stroke; 140mm max tool dia.; 95kg; £600; charnwood.net