



# Moulding cutters

If you need to shape up, then moulding cutters are the way to go. We look at a selection of the many types available

**R**outer cutters fall into three main categories – joint-making, slotting and rebating using straight cutters or groovers, moulding cutters that confer a shape on the wood and, finally, a combination of both using frame and panel cutters which joint and mould in one operation.

## Moulding cutters

We are looking at the second group, which don't perform any joint-making function. They divide into two sub-groups – traditional inspired shapes and simple, more modern profiles. This latter group, unless they are out and out modern in profile, can often be incorporated in traditional work. Some are designed to do both in any case. An example is a roundover

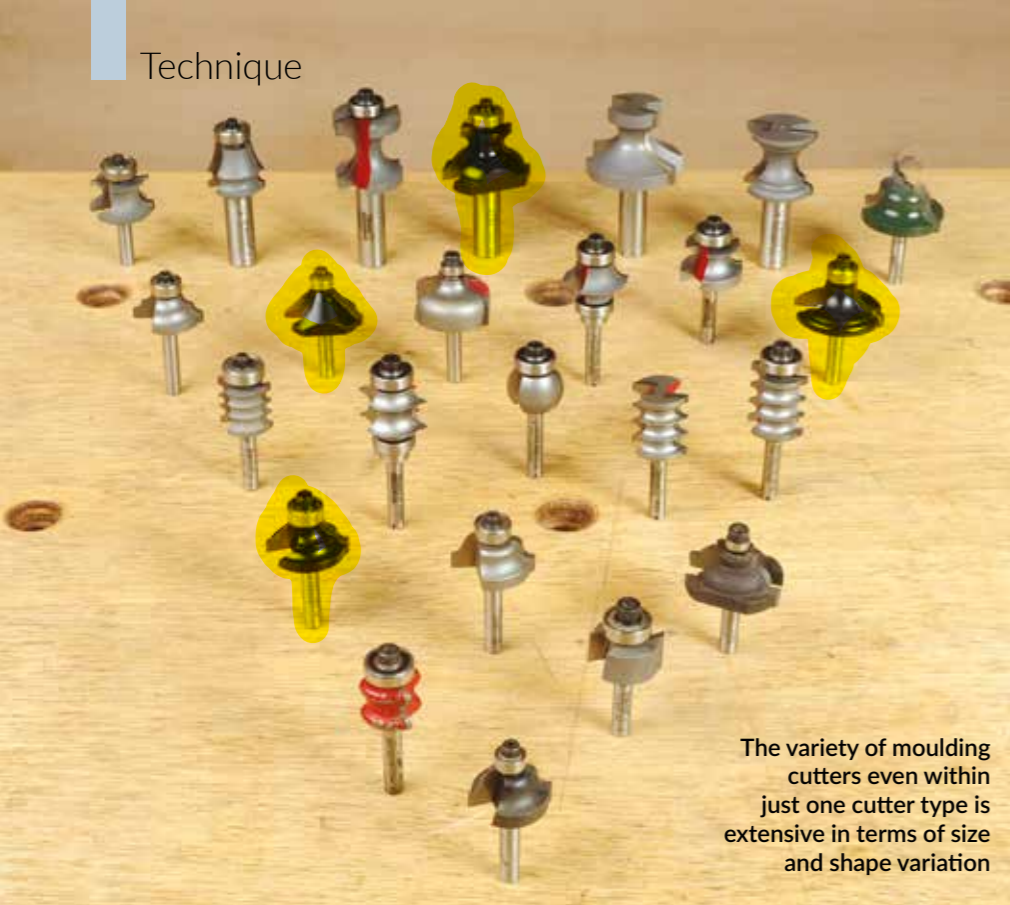
cutter with interchangeable bearings. If the chosen bearing is the same as the cutter radius then it can be either modern or traditional, but fitted with a smaller bearing the resultant quirk or step produced is recognisable as a traditional detail. It is the versatility of a router and its cutters that enable these possibilities.

## Choosing shapes

A basic cutter set usually includes narrow and wide straight cutters, a couple of roundover cutters, a cove and corebox cutter, bevel and V-point, roman ogee and the useless dovetail cutter when unmatched to any jig. Although it is understandable that someone new to routing needs to start with a basic set, once you have moved

up the learning curve, it makes sense to pick an individual good quality cutter to match the sort of work you do. Prepared components have square edges, or arrises, but for various reasons we need to 'tame the arris'. At the very least it needs to be 'broken' with abrasive to take away the sharpness and reduce the risk of splinters. If you are machining a maple worktop then a tiny 3.2mm roundover cutter looks modern and feels right. Or let's say you are making something out of oak; in this case a 'stopped' bevel looks right and has been used down the ages to improve the look of oak furniture as it suits the appearance of the grain. Lastly, mahogany is invariably used in a traditional style so a medium size roundover with a quirk will look right. ➤





The variety of moulding cutters even within just one cutter type is extensive in terms of size and shape variation



These very common profiles illustrate size variations very well, with larger ones on 1/2in shanks for strength



Two cutters, the left hand one being more suitable for a modern, gentle face mould and the right hand cutter designed for a traditional mould on the front edges of shelves etc., but needing guidance



Two slightly different ogee cutters, generally associated with classical forms so better with traditional furniture styles

So deciding on a cutter is actually dependant on the project design and the material.

### Face or edge

Moulding cutters are basically edge mould or face mould. Edge moulds are the easiest to do either using a straight fence or bearing guided. When you have created a rather plain square furniture carcass, moulding the edges dramatically alters the look of it, making it seem much more visually pleasing and acceptable.

### Machining techniques

Face moulding requires some sort of additional guidance in the shape of a template that a bearing guided cutter can run against, or just a straight fence if you are creating a fluted column effect. All machining operations create dust, but face moulding is particularly bad for this, so extraction is essential.

One way to improve the look of a furniture project which is controllable and easy to do, is to machine the edge of a board, cut off the moulding and repeat ad infinitum. This gives you lots of mouldings which can be applied to a plain carcass once it is built.

Mouldings made by the saw and repeat method need to be done on the router table for safety and accuracy. Being cut off a wide board means the wood is stable without bending or breakage during machining.

### Reference material

It is worth poring over cutter manufacturers' catalogues or visiting their websites to give you an idea of the scope of moulding patterns available. However, to make best use of them it helps to find old books featuring furniture and moulding styles as a guide to which is the correct pattern to use.



Face mould cutters which need to run around a template for a properly guided and accurate result. Dust is an issue especially with MDF, so extraction has to be fitted to the router

The use of mouldings in stone and then wood originates back to early times. The Egyptians, Greeks and Romans have all contributed to the vast panoply of moulding styles which are still in use today. Various terms, such as Grecian ogee, torus, cornice, bolection and lamb's tongue, may seem obscure but are recognised descriptions of moulded profiles which are frequently reproduced in router cutters.

### Straight or combination cutters?

The most useful cutters you can have are straight cutters in different diameters and rebate cutters, because mouldings often need to be used alongside flat sections – cornice being a prime example where curves alternate with flat or dentil-moulded sections to create a projecting moulding on top of a bookcase or cabinet.

Combination cutters have more than one shape so can be used in a router table at different heights to give different moulded effects. They can be very useful but are often expensive and need a 1/2in router to accommodate them, so you need to decide with care before shelling out on one.

As with any table-mounted router, lack of cutter projection can be an issue. Don't be tempted to reduce the amount of shank in the collet. Instead buy a good quality shank extender for safe, low vibration working.

Changing the position of a workpiece on the router table from flat to vertical can affect the moulded result. Make sure you machine the correct way round each time, but you can also use a cutter more creatively if you do switch positions. There are no absolute rules about the use of mouldings – if it looks right it probably is. ■



This rough drawn-in end illustrates how a roundover cutter removes less wood than a cove cutter. The latter will need more passes, taking off less wood each time, to avoid straining cutter and machine



A V-groove effect works well here in ash. It could also be done with a round bottom corebox bit instead



A tapered leg moulded using a multi-reed cutter. The trick is to ensure a neat corner meeting of the reeding on all four faces



Making a cornice building up stage by stage, here checking the first two stages look right together



A typical multi-stage cornice giving the illusion of just one moulding when viewed from the front



Two different sizes of a useful Wealden combination cutter. They offer several different possible moulding shapes



A tall face mould suitable for corning using just the one cutter or for a moulded surround. Cutters like these are only available with a 1/2in shank



Just a small selection of the moulding cutters available today. There really is no limit on choice