

## APPLICATION DETAILS

These cutters are designed to be used in pairs to simulate a raised panel effect on solid panels. Two sets are available: one for a 30mm and one for a 40mm width. The cut depth is adjustable from 10-12mm and the panel being moulded should be a minimum of 14mm in thickness.

### MAKING THE TEMPLATE

The cutters are used in conjunction with a template of the outside shape of the desired panel effect. The template should be in 18mm MDF or similar to allow enough thickness for the plunge of the cutter. It may be easier to produce the initial template in a thinner material, say 4mm, then profile the 18mm template with a bearing guided trimmer. When working with templates there is a tendency for the machine to tip and spoil the work. To overcome this a support can be fitted to the base of the machine. This needs to be the same thickness as the template - see overleaf for details. It is also possible to use a thinner template (6mm) with a starting guide block to locate the base of the routing machine, so that the cutter will plunge with the guide bearing lined up with the cutout in the template. However, for this method to work, the block needs to have two locations, one for the profile cutter and another closer to the template cutout for the raise - see overleaf for details.

### ROUTING MACHINE SET-UP

Both the profile and raise cuts need to be made without moving the template. Therefore it is easier to use 2 machines, especially when producing quantities of panels, as it saves the constant changeover and setting of cutters. A simple depth gauge machined from hardwood will simplify the task of setting the cutters to the required depth - see sketch. The cutter is fitted into the machine then plunged until it touches the gauge. The depth stop on the machine is then set to this position.

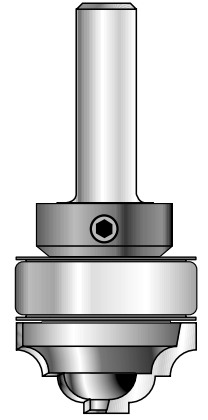
**N.B. Ensure the power is disconnected from the machine before fitting or adjusting cutters.**

### PRODUCING THE PANEL

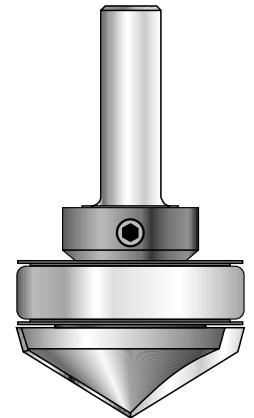
Fit the raise cutter into the machine and set the depth stop to the required depth using the depth gauge. The ideal depth to achieve the full moulded profile is 11mm.

Position the router along one of the straight edges of the template with the bearing against the template (or starting block if using a thin template). Plunge the cutter into the work whilst moving the machine in the cutting direction. Run around the template in an anticlockwise direction and back past the starting position to complete the cut. Next fit the profile cutter into the machine and set the depth stop to achieve the same depth of cut. Starting the cut in the same position, repeat the procedure as for the raise cutter except this time run around the template in a clockwise direction. If using a thinner template with a starting block, be sure to start and end the cut with the machine located against the block.

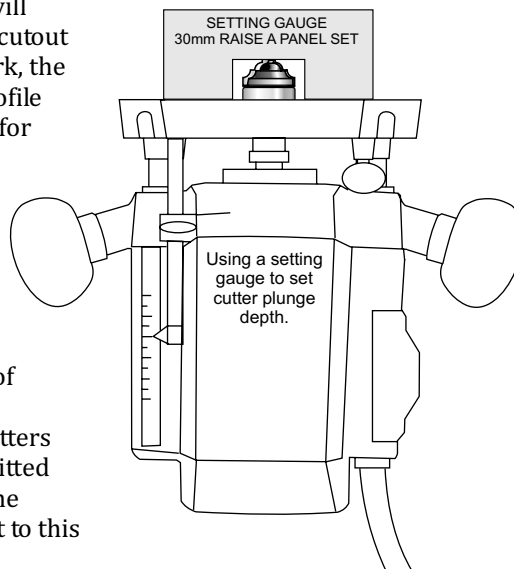
## RAISE-A-PANEL



PROFILE CUTTER

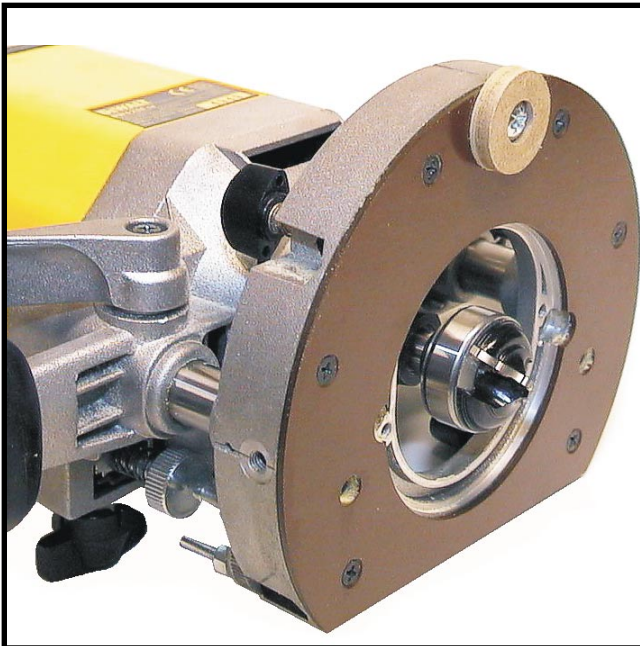


RAISE CUTTER



## APPLICATION NOTES

## RAISE-A-PANEL



### ROUTER ANTI TILT SUPPORT

Make a circular button the same thickness as the template you are using. For small quantities of panels it is often satisfactory to use the same material as the template i.e. MDF etc. However if large quantities of panels are being made then a more hard wearing material such as plastic should be used. Make the button about 25-30mm in diameter and drill and counterbore a hole in the centre to suit a screw, which fits the threaded holes in your router base.



### START LOCATION BLOCK FOR THIN TEMPLATES

When using a template less than 18mm thick a guide block needs to be used to locate the machine. At its simplest, this may be a block of wood fixed to the template. However as 2 positions are required for the two cutters of the set and differing positions for the 2 sets, it is desirable to have an adjustable block. The system described here involves a hardwood block with location dowels for the 2 positions required for a set of cutters, although it could in fact have 4 positions if it was intended to use the template with both the 30mm and 40mm cutter sets.

#### **CONSTRUCTION DETAILS FOR THE LOCATION SYSTEM ILLUSTRATED BELOW.**

Note - none of the dimensions is critical.

1. Take a block of hardwood or similar about 20mm in thickness and 100 mm x 75mm and machine a slot about 30mm long x 7mm wide in the centre of the block at a 10 degree angle.
2. Drill 2 holes at 50mm centres parallel to the long side of the block to suit a dowel of 5-6mm diameter. Fit the profile cutter into the router and plunge down until the bearing lines up with the guide edge of the template. It will be necessary to raise the template above the workbench with some strips of suitable timber. Position the machine about midway along a straight side of the template and slide the location block up to the base of the machine with the dowel holes parallel to the guide edge of the template.
3. Mark through the slot in the block onto the template. Drill a 6mm hole through the template on the centerline of the slot just marked and about 7mm from the end of the slot positioned nearest to the guide edge. Counterbore the underside of the template to accept the head of an M6 roofing bolt. Fit the roofing bolt through the template and position the slot in the block over the bolt. Fit a washer and wing nut.
4. With the machine still fitted with the profile cutter, position the bearing against the guide edge and slide the guide block up against the machine base. Move the machine along the guide edge to ensure that the block is parallel to the guide edge. Tighten the wing nut and drill through the dowel holes and into the template. Repeat the above procedure from '4' for the machine fitted with the raise cutter. It will be necessary to slide the block along the bolt to bring it closer to the guide edge.
5. When both sets of holes have been drilled, fit and glue dowels into the block. Ensure that they are not so long that they protrude through the underside of the template. With a fractionally larger drill than that used for the dowel holes open up the holes in the template to ensure that the block can be inserted and removed easily.

