Routing boxes and furniture handles

Description

Box or furniture handles are required for transporting wooden boxes or opening furniture drawers. In the case of boxes, routing is either into the front or rear part, or into both side parts, whereas with furniture drawers the handle is usually only routed in the front side, unless the drawer is to be opened from two sides. The routing work step is demonstrated in this application example of stackable carrier boxes. Basically, the handles should be routed before gluing the drawer or box because, following gluing, this is only possible with great difficulty, or the clamping options for a box are considerably more limited than with the individual front or rear side of a drawer.
Tools/accessories

Basic equipment:

| Denomination Order no. | Router OF 1010 EBQ-Plus GB 240V 574230 |

*Please obtain the Order No. from the Festool main catalogue or from the Festool website.

The following accessories are required to produce these handles:

- HW hand hole cutter
- Template
- Multifunction table (optional)
- Clamp clips for multifunction table (optional)
- The extractor required is one of the Cleantec mobile dust extractors CT MINI/MIDI – CT 55.

The special hand hole cutter is designed to plunge directly into the workpiece without having to carry out preliminary work with a groove cutter as with other hand hole cutters. With the help of the guide ring fitted on the cutter, templates for handles can be routed. As with the other cutters, the guide ring is replaced by a copying ring that has to be acquired separately. It also has to be installed and centred.

R = 16 mm; NL = 19 mm; D = 19 mm

Preparation/set-up

To produce the template, proceed as follows:

- The template must be produced with extreme care because any irregularities are visible in the subsequent finished workpiece and require a great deal of effort to be corrected. A precisely produced template can also be used later for other workpieces.
- The material thickness of the template should be at least 10 mm for drawer front sections with a thickness of 15–19 mm. Screen-printed plates are very suitable for producing templates because they are particularly stable and robust and also have a specially smooth surface on which the coating of the router table can slide very easily.
- To guarantee that the template can be subsequently clamped, its dimensions should be at least 20 cm x 30 cm.
The grip recess should have a height of at least 35 mm and a width of at least 90 mm. This permits easy gripping with the hand. Furthermore, it should be fitted 40 mm away from the upper edge of the box. To ensure absolutely straight contact of the template on top of the workpiece, you should screw a trim stop onto the upper edge.

The grip recess of template can be drilled very conveniently with a Forstner drill bit. The corners left by the drill bit can be worked on with a rasp or file or a suitable sander [e.g. a power file BF1].

Align the router and multifunction table as follows:

- Place the template on the workpiece and align it. The workpiece and template are placed together on stops, whereby these stops should not be in the area of the grip to be routed. Push the stops, workpiece and template onto the MFT so that they are secured with the clamp clips in the precut grooves of the template. Remember that the fastening clamps are inserted from below into the holes of the MFT. The clamp clips should be fastened as far to the edge of the template as possible to ensure that they do not obstruct the routing procedure.
- Insert the hand hole cutter into the OF 1010 router. Ensure that the router shank is secured up to 2/3 in the chuck.
- Set the speed according to the type of wood and the cutter diameter.

Set the routing depth. When doing this, ensure that the distance from the cutter tip to the middle of the radius is 19 mm. This dimension is important because the routing depth $t$ is calculated as follows.

- Connect an extractor to the router to reduce your exposure to dust to a minimum.
Procedure

Now proceed as follows to route the handle:

- Position the router on the secured workpiece and move the cutter to the middle of the handle.
- Now switch on the router and plunge the cutter into the workpiece. Lock the router’s locking button.
- Ensure that you route in reverse direction and move the cutter and its guide ring in this direction towards the template. Now move along the shape of the template to route the grip in the workpiece. When doing this, ensure that you route in reverse direction.

- When the routing procedure is complete, you should first switch off the router. Wait until the cutter has come to a complete stop before releasing the locking button and taking the router from the workpiece.