

No. 316

## Patching up knots and inlay work with the router



A

### Description

A router, groove cutter and two copying ring sizes can be used to carry out a wide variety of inlay or patching up work. The principle is based on copying rings of different sizes, whereby the large ring is used for routing the recess and the small ring for routing the inlay. This means that both rings have to be tuned to a certain groove cutter diameter so that the recess and inlay fit exactly into one another. This technique is particularly useful when you are patching up large knots or spikes with the same wood. The shape and size of the patch can be selected as required. This technology also ensures rapid and, above all, absolutely precise results for many types of inlay work.



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**B**

## Tools/accessories

Basic equipment:

Denomination	Order no.
Router [Festool, e.g. OF 1010]	*
Copying ring dia. 24 mm and dia. 40 mm	*
Centring mandrel D8	*
TC groove cutter dia. 8 mm	*
Sample or template for routing with copying ring	*

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

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## Preparation/set-up

Make the following preparations:

- First, use a 9-10-mm thick piece of plywood or Multiplex to produce a template for the copying rings to subsequently follow.
- Particularly useful is a template with several large-format holes, which are drilled with a hole cutter for the drill. Select the size of the hole to match the size of the knot hole.
- Now the 40-mm large copying ring is secured with two screws by means of the centring mandrel below the router.
- Then the groove cutter with a diameter of 8 mm is clamped in the router.



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## Procedure

Place the template on the workpiece and align the hole exactly in the middle in relation to the knot. Now clamp it with two fastening clamps on the workpiece and the planing bench. Ensure that the router does not bump against the fastening clamps during routing.

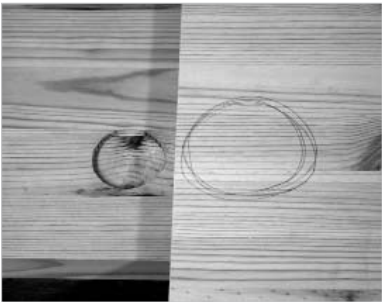


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Connect the router to a dust extractor and move the machine down until the cutter touches the workpiece surface. Use the turret stop and scale to set the routing depth to approx. 6-8 mm. Move the router back up into initial position. Only now should you switch on the router and plunge the cutter into the workpiece. Working in clockwise direction, cut a circular recess out of the workpiece. The router is guided exactly in the template opening by means of the copying ring.



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Now look for a board whose colour and grain pattern approximately matches the section you have just cut out. Use a pencil to mark the matching point on the board and clamp the template with the same bore exactly in this position with fastening clamps.



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Now exchange the size 40 ring for a copying ring with a diameter of 24 mm. For exact centring of the ring, it is essential to use centring mandrel D8 again. Then clamp the 8-mm groove cutter in the router again. Set the routing depth at the turret stop to approx. 12-15 mm. Place the router on the template and move the copying ring to the bore. Now switch on the router and plunge the cutter into the workpiece. Move the router clockwise – with light pressure against the bore – until a circular inlay block has been cut. It is essential to move the router clockwise to ensure that it moves towards the bore and is not forced away from it.



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The inlay block should not be cut out of the board completely so that it does not move into the cutter and become unusable. The remainder is therefore cut out coarsely with a jigsaw.



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This block is then glued into the recess with casein glue and clamped with a clamp clip for approx. 60 minutes.



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The protruding section is then carefully removed with a firmer chisel or hand planer.



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The precision work is best left to the eccentric sander. It provides the final touch to the repair of the knot hole and ensures that the transition is as even as possible.



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If certain shapes have to be inlaid in the wooden surface, this is also possible with this technology. Simply transfer the shape to a template and cut out with hole cutter and jigsaw. Then remove all surface irregularities with a wood file because otherwise these irregularities would also be transferred to the workpiece when the copying ring follows the template. The inlay is then routed out with the smaller ring, but the same cutter. Different types of wood and colours can create charming contrasts here.

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