

No. 211

## Groove cutting



**A**

### Description

The cutting of grooves is a core element of work with the router. Grooves are mainly used for guiding movable furniture parts, but also for fashioning wooden joints. Exact, straight execution of the grooves is therefore extremely important.

The production of straight grooves with the routers and guide rails in conjunction with the MFT/3 is unproblematic and fast.

Grooves can be created with a very wide range of widths. Groove cutters of various diameters are available for this task. Conventional sizes are between 3 mm and 30 mm.

This application example describes the production of continuous, non-continuous and inserted grooves.



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**B**

## Tools/accessories

For a cable duct cut, you will require the following machines and auxiliary equipment:



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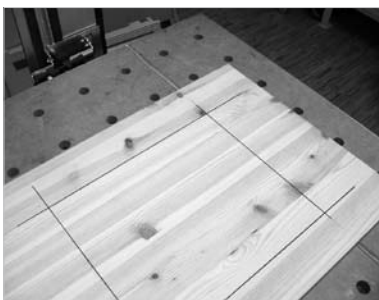


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Denomination	Order no.
Router OF 1010 EBQ-Plus GB 240V (Fig. 211/2) (guide rail adapter in scope of delivery)	574230
Alternative:	
Router OF 1400 EBQ-Plus GB 240V	574410
Guide rail adapter FS-OF 1400	492601
Router OF 2200 EB-Plus GB 240V	574275
Guide rail adapter FS-OF 2200	494681
Groove cutter, shank diameter 8 mm	
Multifunction table MFT/3 (Fig. 211/3) (guide rail FS 1080/2 and angle stop in scope of delivery)	495315
Clamping elements MFT-SP (Fig. 211/4)	488030
Kickback stop FS-RSP (optional)	491582
Mobile dust extractor from the CTM series (Fig. 211/5)	

## C

### Preparation/set-up



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#### a) MFT/3

- Referring to the Operating Instructions, set the guide rail and angle stop exactly to a right angle [see Operating Instructions of the MFT/3].
- Set the guide rail to workpiece thickness.

#### b) Workpiece

- Mark a groove centre line on the workpiece.
- For non-continuous groove:  
Mark limiting lines for the groove perpendicular to the centre line [see Fig. 211/6].

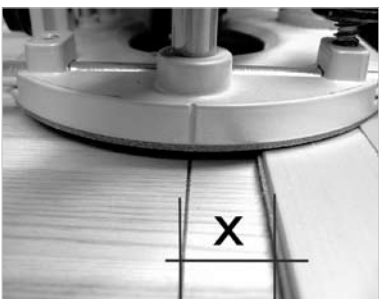
The distance  $x$  of the marked line to the edge of the guide rail depends on the cutter diameter and is calculated as follows:

$$x = \frac{\text{Cutter diameter}}{2} \text{ mm} + 2 \text{ mm}$$

2 mm must be added for safety purposes.

For a 12-mm groove cutter, this results in a distance of 8 mm to the guide rail.

The marking at the router table is used to align the machine [see Fig. 211/7].



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#### c) Setting the router:

- Insert cutter in collet up to the minimum clamping depth (shank marking) and tighten.
- Fit the FS guide rail adapter on the OF.
- Place the OF on the guide rail.
- Set the desired routing depth. The turret stop can be used to preset up to three routing depths [see Operating Instructions].
- Set the lateral clearance of the router to the guide rail [see calculation; in the example  $x = 8$  mm with a 12-mm groove cutter].
- Align the marking on the router table to the centre line of the groove [see Fig. 211/7].
- Check: marking should always be on the centre line at the start and end of the groove.
- Place the support on the OF [see Fig. 211/8] on the workpiece surface.

The kickback stops of the guide rail should be used for non-continuous or inserted grooves [see Fig. 211/9].

Move the router to the respective limiting position of the groove and fasten a kickback stop here in each case.

- Set the speed using the table in the Operating Instructions.
- Attach the extractor hose.



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## E

# Procedure

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- With the stop set exactly, the workpiece is positioned against the stop rail and secured and clamped.
- Fold the guide rail down onto the workpiece.
- Set the router on the rail.
- Switch on the router and move to the preset stop before the workpiece. With continuous grooves, move to set depth or, with inserted grooves, plunge into the workpiece. Important: the cutter must not be touching the workpiece when the router is switched on!
- Guide the router to the set limitation or, with a continuous groove, guide over the workpiece edge.

To prevent splitting of the wood, place a wooden splinterguard in position at the end of the workpiece!

Repeat the procedure until the groove has the correct depth. The three routing depths previously set at the turret stop are very practical.

The fine adjustment at the OF can then be used to set the groove depth exactly during the last routing run.

**FESTOOL**

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