

No. 103

## Sanding perpendicular joints

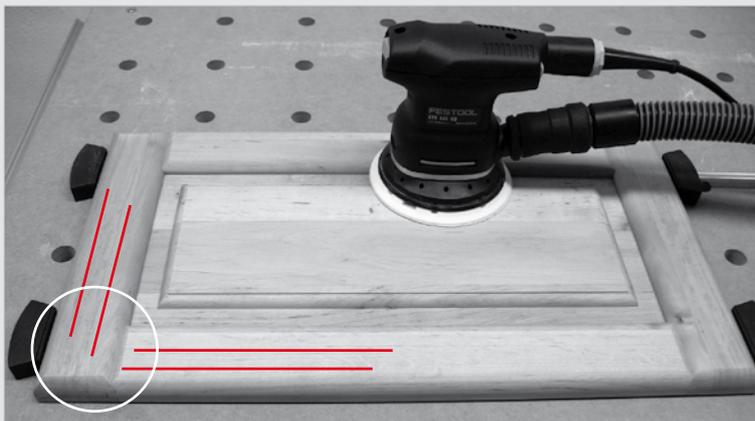


A

### Description

When two pieces of wood meet at right angles, particular care needs to be taken to avoid sanding across the grain of the wood, which would damage the surface quality. Cross-grain sanding causes scratches in the wood which can still be detected easily even after surface finishing, and are unacceptable in professional work.

Festool's eccentric sanders are superbly suited to such applications. They make it possible to achieve a surface virtually free of sanding rings and scratches. With these tools it makes no difference whether you sand with or against the grain. This is referred to as a "smearing" sanding motion. (Fig. 103/01)



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**B**

Tools/accessories

The following tools and accessories are used in this application example:



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Name	Order No.
Eccentric sander, ETS 125 EQ-Plus 240V	571617
Mobile dust extractor, CTM 33 E 240V	583464
Suction hose, "plug it" D 27x3.5m-AS	493996
StickFix sanding discs, Rubin, STF D 125/90 P120 RU/10	495998

Alternative:

Name	Order No.
Gear-driven eccentric sander ROTEX, RO 125 FEQ Plus 240V	571589
Eccentric sander, ETS 150/5 EQ-Plus 240V	571560
Eccentric sander, ETS 150/3 EQ-Plus 240V	571558
Gear-driven eccentric sander ROTEX, RO 150 FEQ Plus 240V	571592
Any mobile dust extractor from the CTM series	*
Abrasives, Rubin, for wood	*
Abrasives, Brilliant 2, for paint and varnish	*

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



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## Preparation/set-up



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The following sanders are purely eccentric sanders:

- ETS 150/5 EQ
- ETS 150/3 EQ
- ETS 125 EQ

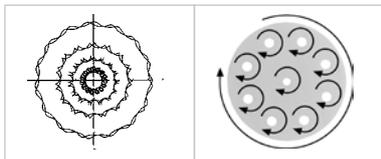
These three devices differ in features such as their sanding stroke, the diameter of their sanding pads and their weight. This must be considered if you need to do overhead work, for example. In such cases the lighter ETS 125 EQ is ideal.



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If you need to remove large amounts of material, you can sand first with the ROTEX gear-driven eccentric sander RO 150/ 125 in coarse sanding mode (Fig. 103/13) and then finish with fine sanding in the eccentric mode. (Fig. 103/14).

Fig. 103/12 shows the ROTEX being switched from coarse to eccentric sanding.



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Dust extraction must be used when sanding.

ETS 150 and ETS 125 have built-in dust extraction and are supplied together with a filter cartridge. These models can be used outside the workshop when you do not have a dust extractor unit with you.

In joiner's workshops in UK, the use of a dust extractor of dust class M is recommended by industry authorities.

All Festool eccentric sanders can be connected to a Festool mobile dust extractor. The use of the "plug it" suction hose is especially practical here. If you are sanding painted surfaces, the anti-static model should be used. (Standard feature with Festool)

**D**

## Examples

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A few examples of perpendicular joints:

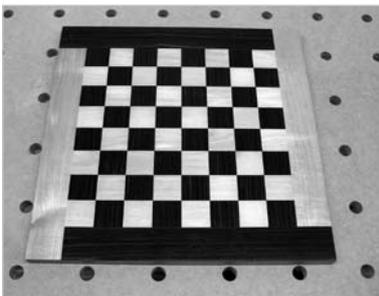
1. Mitre joints at corners
  - e.g. picture frames (Fig. 103/15)
2. Butt corners (Fig. 103/16)
  - door frames of cabinet and room doors
  - window sash frames
3. Veneering work, parquetry and inlays also result in intersecting directions of grain (Fig. 103/17).



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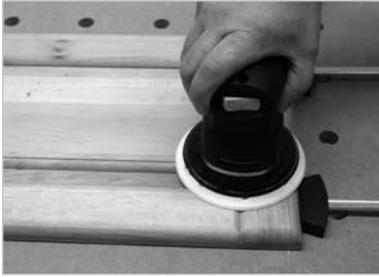
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**E**

## Procedure



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Select an abrasive from the Festool accessory range with the right grit for the particular surface quality of the wood. Festool offers the right abrasives for different materials (wood, paint, metal, etc.).

For wood, use Rubin; for layers of paint over wood, use Brilliant 2

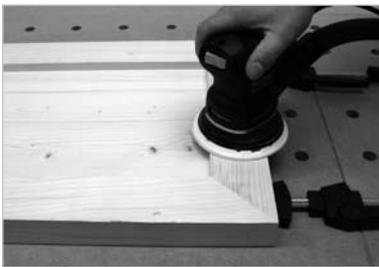
- For coarse preliminary sanding of untreated surfaces, use Rubin P 120 abrasives.
- Guide the tool so that the sanding pad is always parallel (horizontal) to the workpiece surface.
- Move the sander evenly over the workpiece.
- Do not rest too long in any one spot; remember that the sander is removing wood, and that can lead to dents in the surface.



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When sanding veneered surfaces, there is risk of "sanding through" the veneer - especially at the edges of the board

- To prevent that use the green thumbwheel to reduce the motor speed, which reduces the rate of material removal. (Fig. 103/19)
- To sand between paint coats, use Brilliant 2 P 220 or P 240 abrasives. Also be sure to follow the recommendations of the paint manufacturer. (Fig. 103/20).
- Note when attaching abrasives to the sanding pad: the holes in the abrasive disc must line up with the holes in the sanding pad. Optimum dust extraction is only possible with the abrasives in this position. (Fig. 103/21).



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