

No. 303



Sawing acrylic glass

A

Description

Acrylic glass - better known under the name Plexiglas - is also becoming more and more popular in modern interior fitting and with DIY enthusiasts due to its wide variety of application options and relatively simple processing with conventional power tools. This material has many significant advantages over "real" glass. The most important is the break resistance - combined with very high optical quality and high light transmission. Above all, the person processing this material has no great difficulty when it comes to making cutouts or cutting any kind of shapes. The prerequisites for a perfect cutting result are explained step-by-step in the following example.



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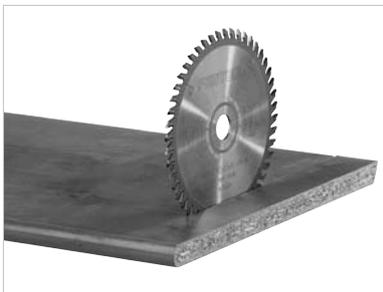
B

Tools/accessories

Basic equipment:

Denomination	Order no.
Portable circular saw (Festool, e.g. ATF 55 EB)	*
Fine tooth saw blade with at least 48 teeth	*
Guide rail	*
Quick-action clamp FS Rapid or fastening clamps	*
Dust extractor	*
Wooden blocks or clamping elements as base	*

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



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Note:

The use of the correct saw blade in combination with a speed suitable for the material is particularly important and a decisive factor determining the cutting quality. If you process heat-sensitive acrylic glass at an excessive cutting speed and work with the wrong saw blade, there is a risk of the material melting at the edges. You should therefore use a fine tooth saw blade with at least 48 teeth and set the circular saw speed to stage 4.

C

Preparation/set-up



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Make the following preparations at the portable circular saw and guide rail:

- If necessary, replace the saw blade with a fine tooth saw blade with at least 48 teeth.
- Then adjust the black guide jaws at the portable circular saw with a screwdriver, size 0.8 x 4 x 100, to the guide rail, ensuring there is no play.



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- Adjust the cutting depth using the scale on the portable circular saw to 6 mm. Press in the knob on the scale and, at the same time, shift to the desired depth.
- Now adjust the speed of the portable circular saw to stage 1 and saw into the rubber splinterguard along the entire length of the rail. This sets the cutting edge of the splinterguard exactly to the circular saw including saw blade and can therefore be used as a guide edge and scribe mark.

E Procedure

Place the acrylic glass on a work bench (e.g. multifunction table MFT) or wooden supports. With thin acrylic glass, you should use a chipboard as a base to prevent the material from bending when it is sawn. Then place the guide rail according to the scribe mark on the workpiece and secure this with the matching fastening clamps for guide rails or the quick-action clamp FS Rapid (do not use FS Rapid with material that is too thin!).



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Now connect the extractor hose of your dust extractor to the portable circular saw and set the speed level at the circular saw to 4. Then place the portable circular saw in front of the workpiece on the guide rail and adjust the cutting depth to correspond to the workpiece thickness. The blade should not project more than 3-5 mm out of the workpiece. Unlock the plunging device with your thumb by pushing the green knob forwards. Now switch on the machine and plunge in the saw blade in front of the workpiece.

Note:

When plunge cutting, the saw blade must still not touch the workpiece to prevent kickback.

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