

No. 545



Routing Dibond® composite panels

A

Description

Aluminium composite panels such as Dibond® are used both indoors and outdoors.

Thanks to the heavy-duty structured coating, the material is ideal for the production of ceiling linings, wall cladding, as well as shelves, signs and different covers. Dibond® is often used at trade fairs and in display and store construction.

Dibond® composite panels can be shaped with an extremely easy processing technique. The process, the routing and folding technique, makes it possible to produce shaped products of all types and sizes.

This application example describes how these composite panels can be processed with the Festool aluminium composite milling machine PF 1200 or the Festool router OF 1010, OF 1400, OF 2200.



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V-shaped or rectangular grooves are routed into the rear side of the Dibond® composite panels with blade cutters or form cutters. The aluminium cover plate on the front side and a part of the core material are left standing. The remaining material is thin enough to permit folding by hand. A folding machine is not required. The groove shape determines the bending radius.



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B

Tools/accessories

Basic equipment:

Version 1:

With the aluminium composite milling machine PF 1200

Denomination	Order no.
Aluminium composite milling machine PF 1200 E-Plus Dibond GB 240V	574252
V-groove cutter HW D 118 mm, angle 90°	491470
V-groove cutter HW D 118 mm, angle 135°	491471
Feeler roller for milling machine Dibond® D2	491542
Feeler roller for milling machine Dibond® D3	491543
Feeler roller for milling machine Dibond® D4	491544
Feeler roller for milling machine Dibond® D6	491545
Kickback stop FS-RSP	491582

CTL series mobile dust extractor

Version 2:

With the router

Denomination	Order no.
OF 1010 EBQ-Plus GB 240V	574230
Guide rail adapter FS-OF 1000	488752
OF 1400 EBQ-Plus GB 240V	574410
Guide rail adapter FS-OF 1400	492601
OF 2200 EB-Plus GB 240V	574275
Guide rail adapter FS-OF 2200	494681

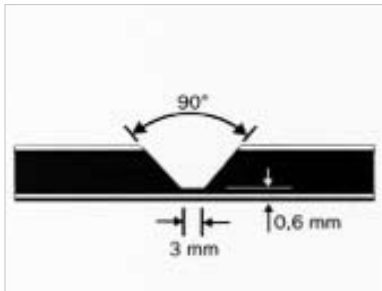
Cutter:

V-groove cutter HW S8 D18/-90°	491444
V-groove cutter HW S8 D18/-135°	491443

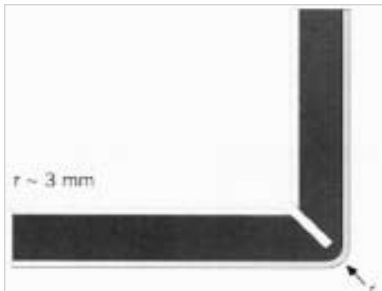
CTL series mobile dust extractor

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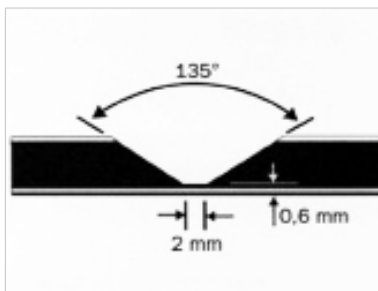
Preparation/set-up



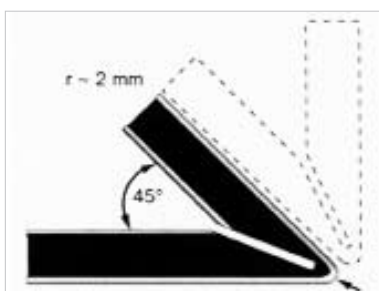
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Basic equipment:

Version 1:

With the aluminium composite milling machine PF 1200

- Use cutter to match angle of bend (see Fig. 545/9 and 545/11)

Router	Angle of bend
V-groove cutter HW D 118 mm, angle 90°	For bend angles up to 90° (see Fig. 545/9)
V-groove cutter HW D 118 mm, angle 135°	For bend angles up to 135° (see Fig. 545/11)

- Use feeler roller to match panel thickness in PF 1200:

Follower roll	Panel thickness
Feeler roller Dibond® 2	2 mm
Feeler roller Dibond® 3	3 mm
Feeler roller Dibond® 4	4 mm
Feeler roller Dibond® 5	5 mm

Version 2:

With the router (using the OF 1400 EBQ as an example)

- Use cutter to match angle of bend (see Fig. 545/9 and 545/11)

Router	Angle of bend
V-groove cutter HW D 118 mm, angle 90°	For bend angles up to 90° (see Fig. 545/9)
V-groove cutter HW D 118 mm, angle 135°	For bend angles up to 135° (see Fig. 545/11)

E

Procedure



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Version 1:

With the aluminium composite milling machine PF 1200

- Secure Dibond® composite panels
- Mark the folding line
- Position the guide rail with the setting gauge and secure with fastening clamps
- Remove setting gauge
- Set the machine speed to level 6, switch on suction hose
- Mount machine on guide rail in front of workpiece edge
- Switch on machine and press down slowly until the stop plate bears on the depth stop
- Slide the machine forwards along the guide rail
- At the end of the cut, switch off the machine and swivel upwards

Tip:

In the case of plunge cuts, the kickback stop FS-RSP must be attached to the guide rail because of the danger of kickbacks behind the machine.



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Version 2:

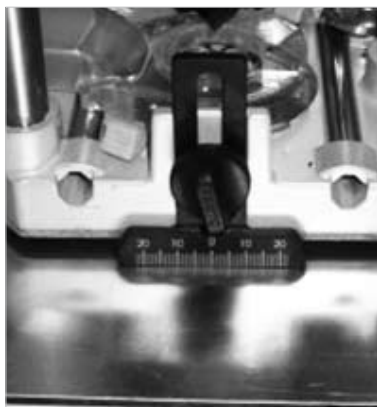
With the router

- Secure Dibond® composite panels
- Mark the bend area
- Secure the guide rail adapter to the router table
- Guide rail is secured with fastening clamps to the workpiece

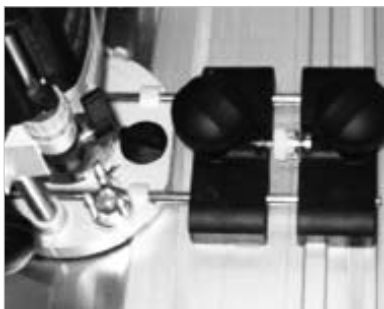
Tip:

Ensure that there is a safety distance X of 5 mm between the front edge of the guide rail and the cutter or the groove.

- In order to cut along the scribe mark, the cutter can be positioned exactly using the marking at the router table (see Fig. 545/13) and on the scale of the support (see Fig. 545/14).



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Tip:

The distance of the cutter to the guide rail can be set finely using the fine adjustment (see Fig. 545/15).



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- Use the routing depth setting device to regulate the routing depth so that a part of the core material and the front aluminium cover plate remain (see Fig. 545/17). You can readjust the routing depth at any time using the routing depth setting on the router.
- Set the speed to level 3
- Connect dust extractor to OF 1400
- Switch on machine, plunge into workpiece and move parallel on the guide rail



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The remaining material is thin enough to permit folding by hand (see Fig. 545/18). A folding machine is not required.

FESTOOL

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