IMPACT ACOUSTIC®

Design Guide

English

Data preparation

The ARCHISONIC® raw panels are only cut on one side. The panels are only processed on the side from which the CAD drawing was created. For example, in the case of a ceiling pattern with ceiling panels, the data has to be mirrored in advance so that the cuts are made on the bottom side of the elements later on.

In order to be able to cut your projects according to exact customer requirements, we ideally need the 2D contours in DWG or DXF format. Please preferably use our file template for this. The template contains various layers that define the respective processing methods or can be used for notes.

Panel dimensions

The standard dimensions of our ARCHISONIC® raw panels are 1220 x 2820 x 12mm and 1820 x 2420 x 24mm. Please send us your designs taking into account the panel dimensions.

Special sizes
In principle, special dimensions of our raw material are possible up to a length of 3 metres, but the width of 2.40 metres is given. The delivery time for this is around 12 weeks.

Material processing

The acoustic material can be processed very flexibly. We use a digital cutting system based on a flatbed plotter to process our products.
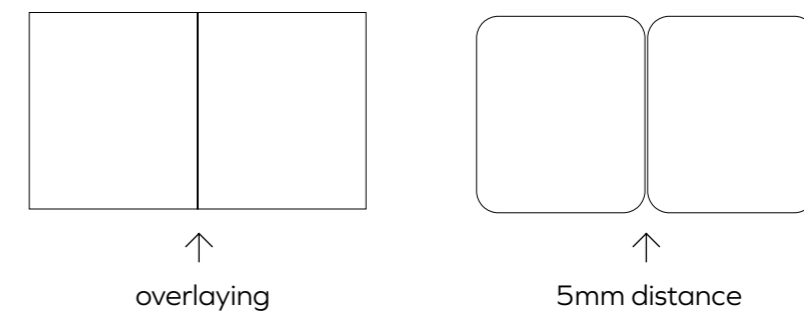
The panels can also be processed using a cutter, circular saw or crown drill, for example during on-site installation.

Through Cut

Through-cut refers to straight or curved, continuous cuts. The cut is made with different precision knives that cut through the material (not milling). This results in a cutting width of 0mm.
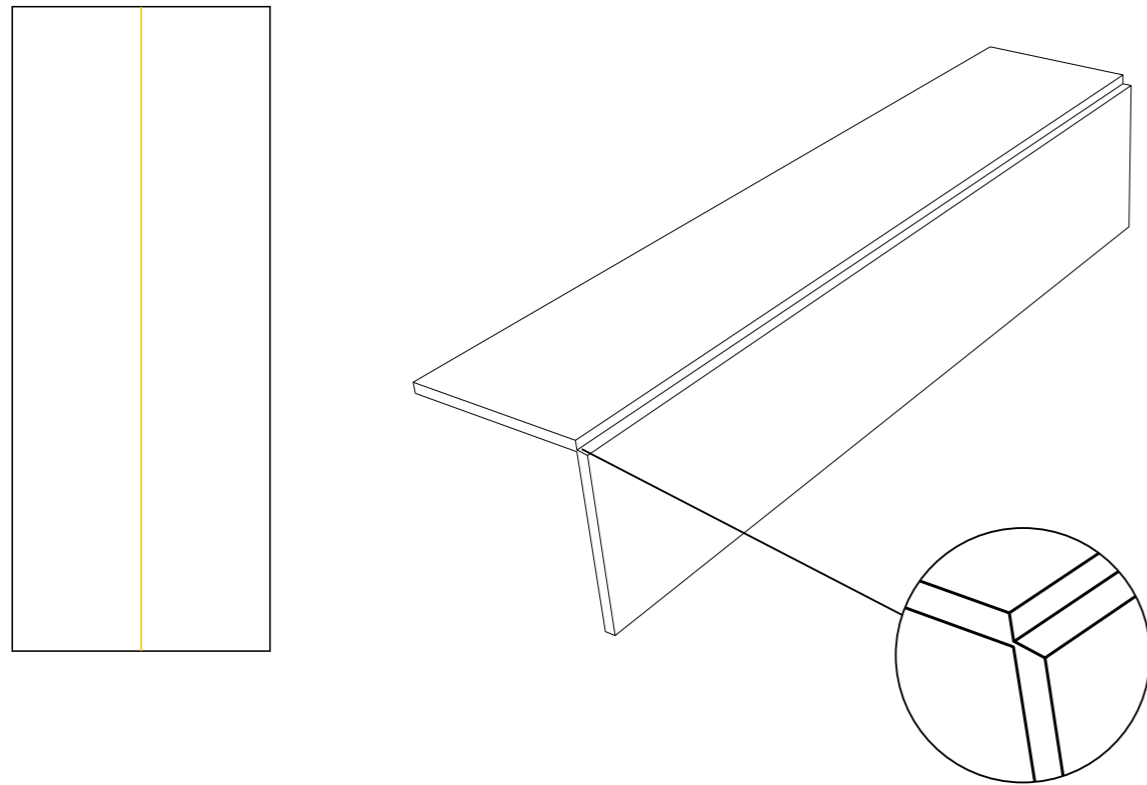

———— Through Cut

↑ overlaying   ↑ 5mm distance
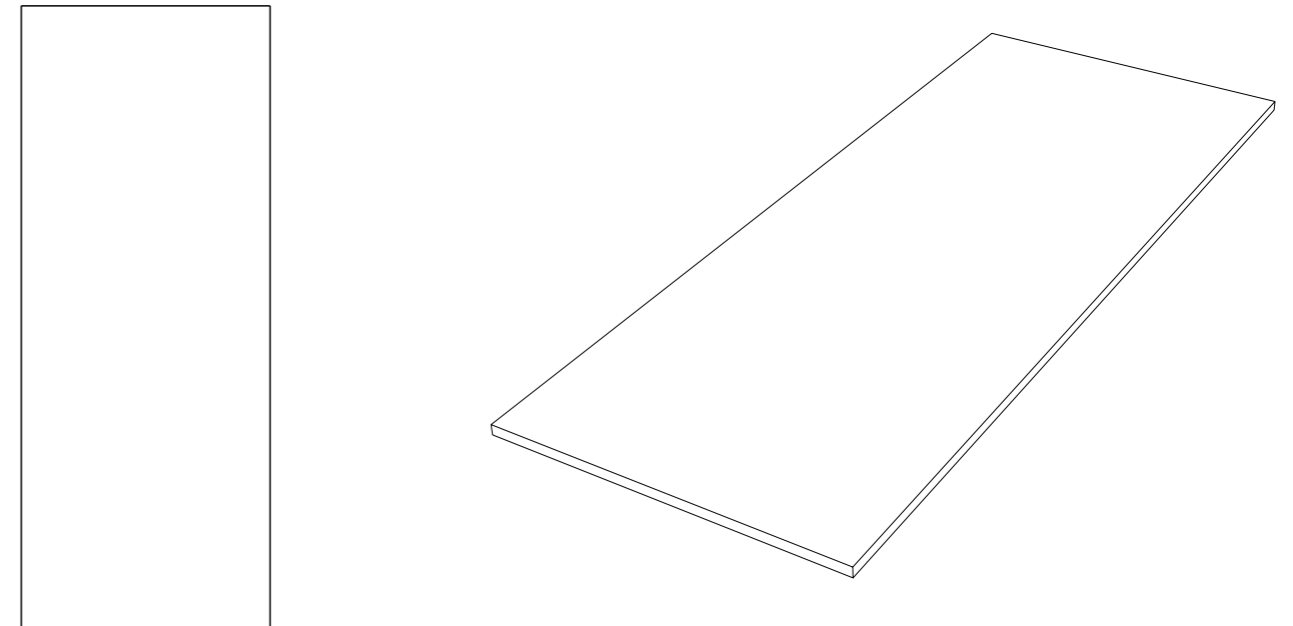
With straight Through Cuts running parallel to each other, the lines can lie exactly on top of each other. For rounded corners, a minimum distance of 5mm between the cuts is mandatory.

Straight Cut

Straight Cut is the term used for straight as well as curved cuts with a predefined depth. These cuts are well suited to create a hinge function. The depth can be freely selected here. Please specify it in the template in the layer name: e.g. „Straight-Cut / 10mm". If you need several straight cuts with different depths, please create a new layer with different colour and name for each depth.


_____ Through Cut
_____ Straight Cut / 10mm deep

V-Cut

A V-Cut is a V-groove or chamfer. The angles 10°, 15°, 22.5°, 30° or 45° can be selected. Please give us this information as well as the desired depth in the layer designation: e.g. „V-Cut 45° / 8mm deep". If you need several V-Cuts with different depths, please create a new plane with different colour and designation for each depth.
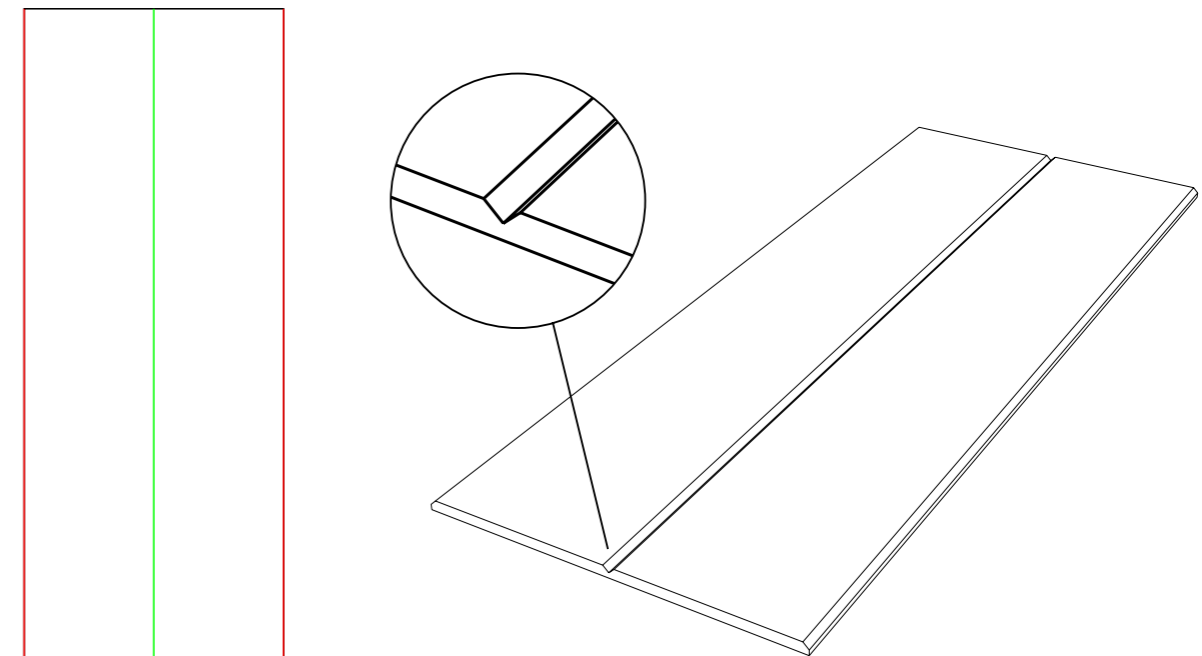

_____ Through Cut
_____ V-Cut 45°/8mm deep
_____ V-Cut 45°/8mm deep

- Please note that with a V-cut the cut is made on both sides of the line and therefore a „V-cut 45° / 8mm deep" results in a V-groove with 2x45° and 8mm depth.
- With a V-groove, the angle mentioned above is always cut to the right and left of the line (e.g. 2x45° results in a V-cut of 90°). In the case of a chamfer, the angle matches the defined angle, as this is only cut once.
- Different V-Cut angles within a panel can only be cut at an extra charge, as this has to be set manually. However, different parts are possible without any problems.
- V-Cuts can only be cut with a minimum depth of 6mm up to a maximum depth of 12mm. V-Cuts up to 24mm depth are also possible for an extra charge.
- For parts that are to be bent, we recommend a V-Cut depth of 11.5mm (12mm plate) or 23.5mm (24mm plate).

Possible angles

10° 15° 22.5° 30° 45°

20° 30° 45° 60° 90°
10° 10° 15° 15° 22.5° 22.5° 30° 30° 45° 45°
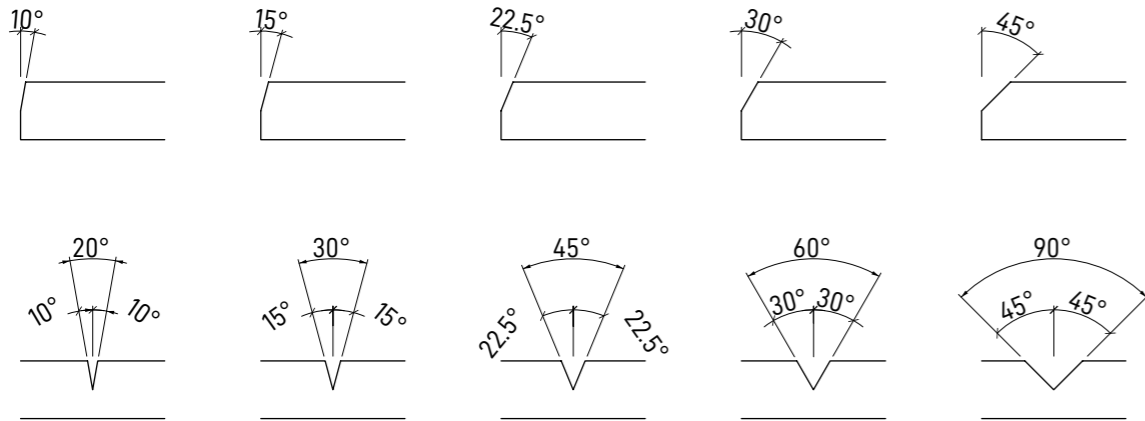
The drawn line indicates the lowest point or the centre axis of the V-cut.

45° 45° 45° 45°
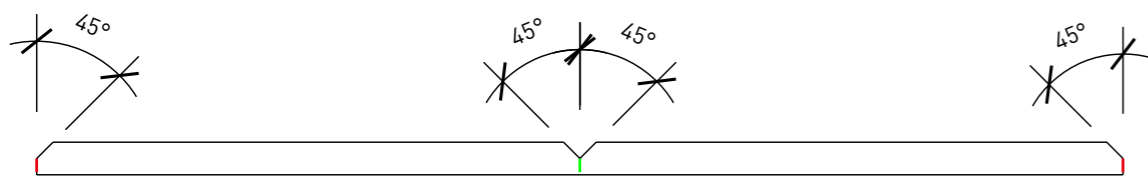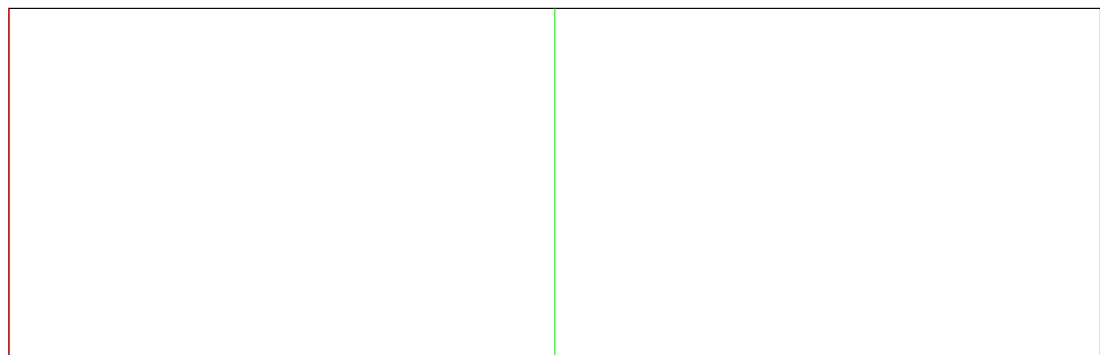
Draw

Draw is the term used for markings such as part numbers or position markings. These are written directly on the panel during cutting with a non-washable pen. We recommend a font size of 5mm for this. All contours that are to be drawn must be recorded in advance in the „Draw" layer.

Please use „single line fonts" for text and numbers, e.g. the font „MecSoft_Font-1.ttf", which you can download free of charge from the following link: http://wiki.mcneel.com/_media/legacy/en/MecSoft_Font-1.zip

1_1
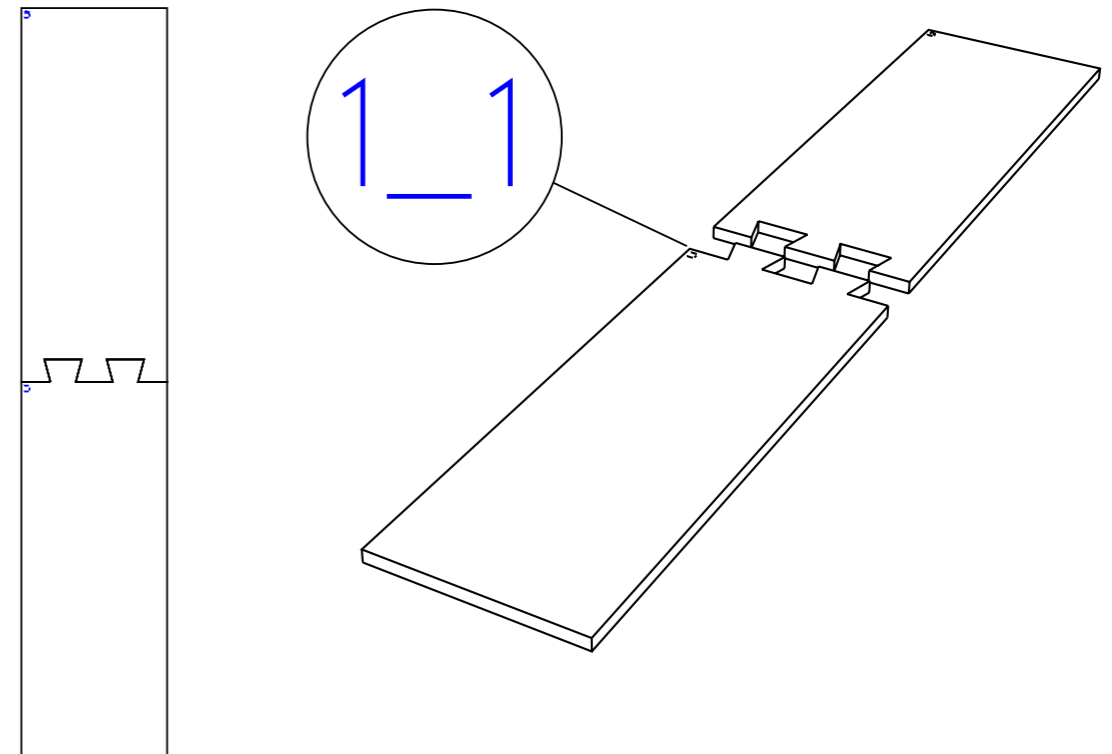
——————— Through Cut
——————— Draw

Cutting plan (example)

ARCHISONIC

TOTAL PANELS:
12.304 Ice Blue = 3 Panels
12.500 Snow White = 2 Panels

V-Cut 30° / 6mm Deep
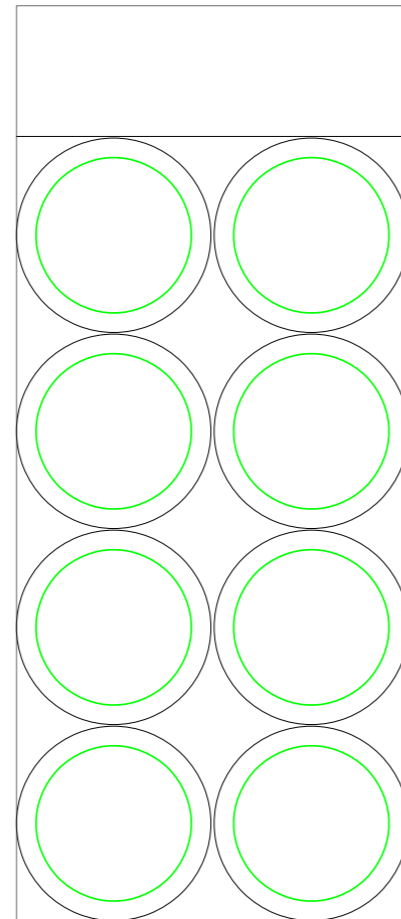
V-Cut 30° / 10mm Deep

CUTTING DATE:_____
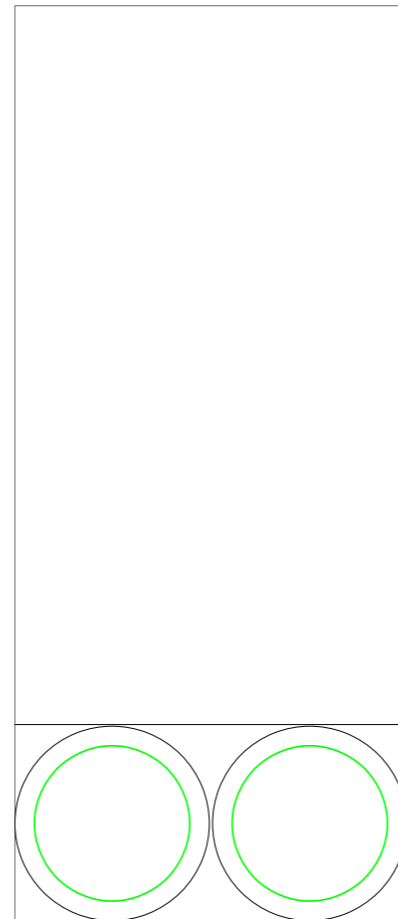CUT BY:_____

PACKAGING INSTRUCTION:
○ Cardboard box:_____
_____
_____
_____
○ Pallette:_____
_____
_____
_____
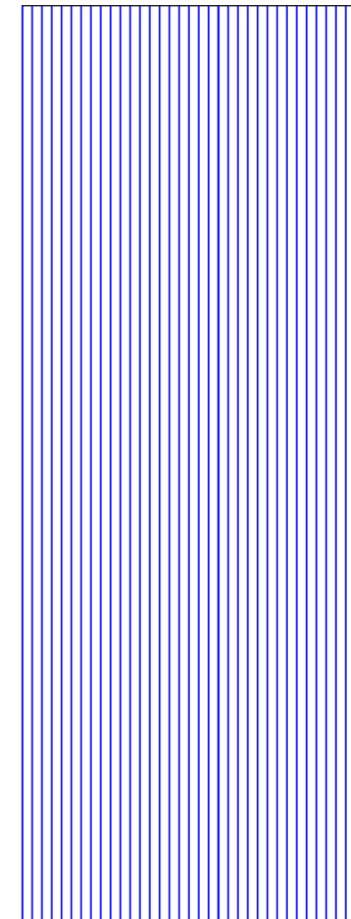○ Others:_____
_____
_____
_____

12.304 Ice Blue

○   2 x

12.304 Ice Blue

○   1 x

12.500 Snow White

○   2 x

Cutting plan (example)

V-Cut 15° / 23mm Deep **V-Cut 45° / 5mm Deep**
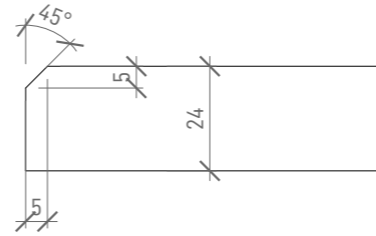
24.516 Soft Coral

30° 30° 30°
12.3 17.7 12.3 17.7 12.3
24 23
±30 ±30

45°
5
24
5

24.516 Soft Coral — 1 x — 1427 — 300
24.516 Soft Coral — 1 x — 2000
24.516 Soft Coral — 1 x — 2400
24.516 Soft Coral — 1 x
24.516 Soft Coral — 1 x
24.516 Soft Coral — 1 x — 2339
24.516 Soft Coral — 1 x

24.516 Soft Coral — 1 x — 898.5 — 100
24.516 Soft Coral — 1 x — R1196 R1196 R1196 R1196 — 200 — 100
24.516 Soft Coral — 1 x
24.516 Soft Coral — 1 x — 1200
24.516 Soft Coral — 1 x — 1200 — R1900 R1724 R1548 R1372 R1020 R844 R668 — 200
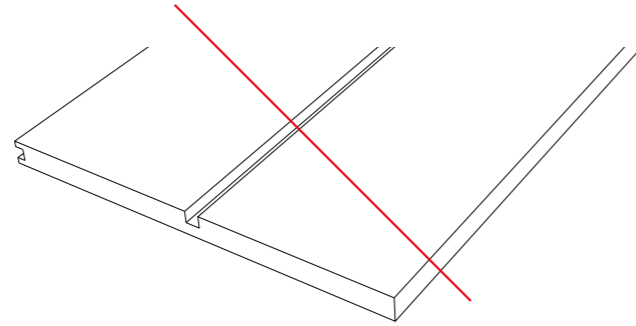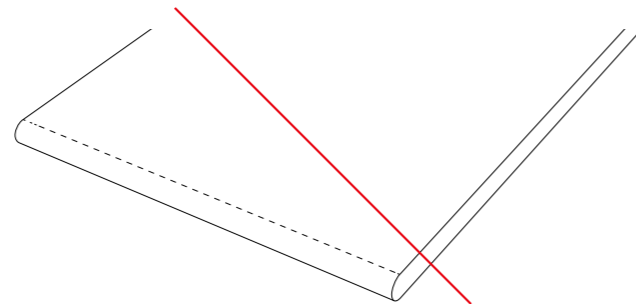24.516 Soft Coral — 1 x — 2400 — 100

What is not possible

Grooves
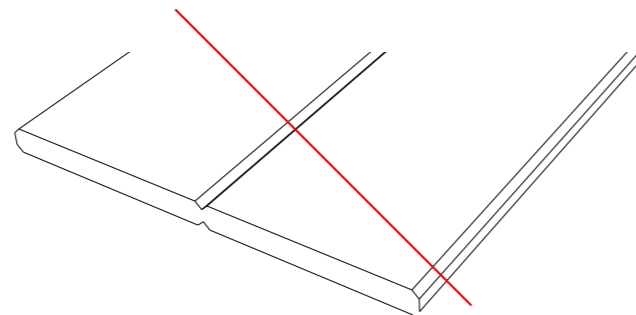Processing of the edges as well as cut-outs with a desired depth are not possible.

Round edges
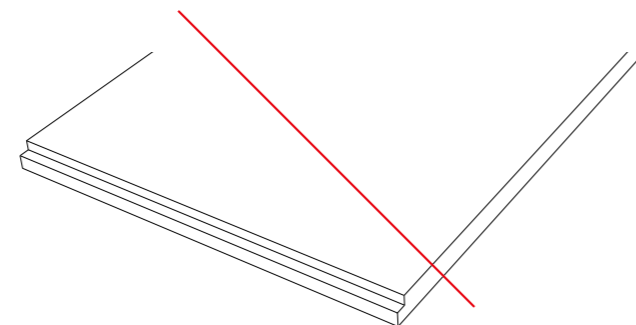Rounded edges are not possible. Edges are processed exclusively by means of V-Cuts.

Processing on both sides
The panel can only be machined on one side. Faults on the front and back are not possible.
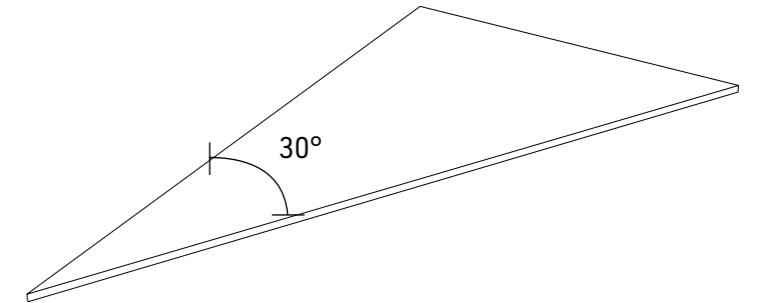
Fold
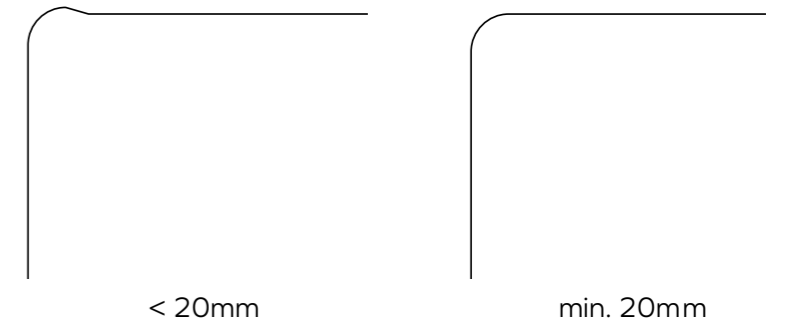Gradations of the edges cannot be cut.

Pointed angles
Angles more acute than 30° are not possible with through-cuts or straight cuts, as the blade cannot grip the material, frays or leads to blade breakage.
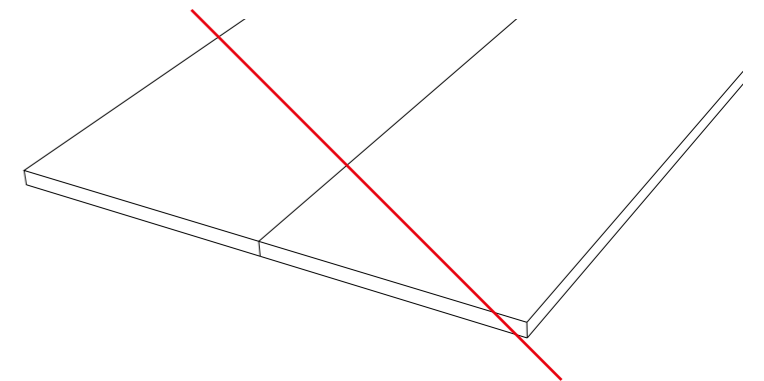
30°

Corner radius < 20mm
Through-cuts or straight-cuts can only be cut with a minimum radius of 20mm. With smaller radii, the cuts become imprecise.

< 20mm   min. 20mm

Butt nudged
We strongly recommend chamfering or edging for lined-up panels, as the material can lead to an uneven cutting pattern in butt-jointed parts.

#We MakeAn Impact

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