

# Shaping



## Routing and Folding

For individual designs DIBOND® can be shaped with the so called routing and folding technique which allows a variety of shapes and design to be manufactured. A V-shaped groove is routed on the reverse side of the DIBOND® using a disk or end milling cutter. The grooves can also be produced using a vertical panel saw with a routing device for DIBOND®, on a CNC machining centre, with a panel routing machine or a hand routing machine. A thin layer of the core material needs to be left at the base of the groove, ie on the inside of the outer cover sheet. The outer cover sheet can then be bent manually, resulting in an exact and clean folding line which follows the routed groove. The outer radius of the folded edge depends on the shape of the groove and its depth.

The whole folding should be done in one action, exceeding the desired angle by 10 to 20 degrees.

## Important - folding succour:

To bend a narrow and long DIBOND® folding edge we recommend using a folding succour fabricated of a DIBOND® panel strip and a joint profile (U/H-profile).

The routing and folding technique offers convincing advantages:

- Minimum investment for the production of individual DIBOND<sup>®</sup> shapes
- Milling machines are inexpensive tools which are equally applicable for workshops or construction sites
- Serial parts can be produced economically on vertical panel saws
- Easy technique allowing many design possibilities
- Folding can be done manually on site, no prefabrication necessary, flat transportation - this means low costs for transport and storage
- Inexpensive production of shaped parts like interior claddings, shop fronts, furniture, POS displays, corner pieces
- Shapes are not restricted by machine dimensions

Please note: the routing and folding techniques can be used for all DIBOND® standard surfaces.



## Bending

DIBOND® can be formed three dimensionally by means of conventional metal and plastic fabrication methods. The minimum bending radius is fifteen times the plate thickness.

### **Bending with a brake press:**

DIBOND<sup>®</sup> can be formed with a brake press just like full metal sheets. For this technique, the so called airbending process is applied. The DIBOND® panel rests on the edges of the die (rails, channels) and is bent by the punch (tube or shaft). The bending angle is determined by the width of the die and the stroke of the punch.

#### Bending with a folding machine:

When working with folding machines, DIBOND® is clamped between two cheeks. The projecting edge is bent around the upper clamping cheek and former using the movable swivel bar. The bending radius is determined by interchangeable formers attached to the upper clamping cheek.

**Bending with a roll bending machine** DIBOND® can be bent with roll bending machines as they are used for full metals - mainly with three or four roll machines.



HVG FACADES A Division of Halifax Vogel Group Pty Limited

Ph: 1300 881 712

info@hvgfacades.com.au www.hvgfacades.com.au