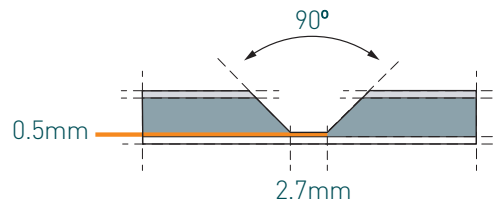


PANEL PROCESSING

1.1

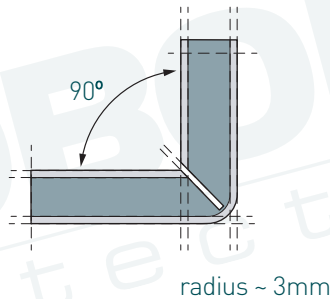


90° V-groove for folds up to 90°

A minimum layer of 0.5mm of the core material should be retained in the groove to ensure strength and performance and superior surface finish.

Excess material in the channel of the V groove may result in cracking of the face skin when folding.

1.2

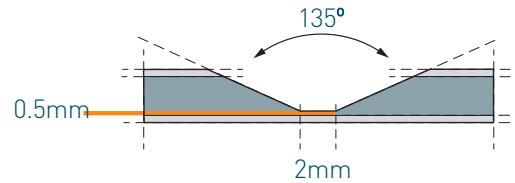


radius ~ 3mm

1. V-grooving 90° Corners

PANEL PROCESSING

2.1

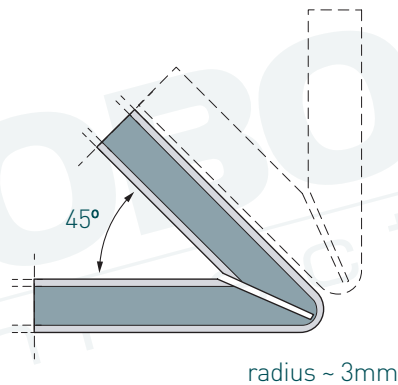


135° V-groove for folds up to 135°

A minimum layer of 0.5mm of the core material should be retained in the groove to ensure strength and performance and superior surface finish.

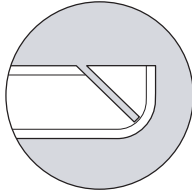
Excess material in the channel of the V groove may result in cracking of the face skin when folding.

2.2



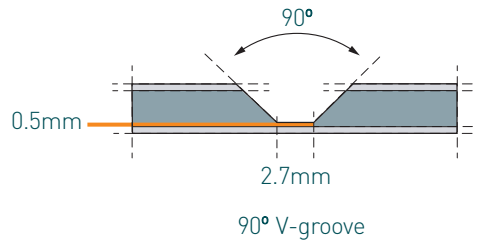
2. V-grooving 45° Corners

PANEL PROCESSING



3.1

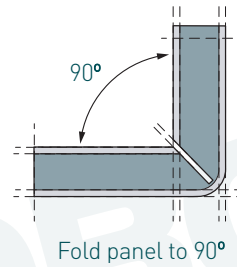
As adhesives and sealants do not adhere to the core material of PROBOND panel it is necessary to create rolled edges which provide an aluminium surface suitable for adhesion. Consult adhesive and sealant application instructions for correct use.



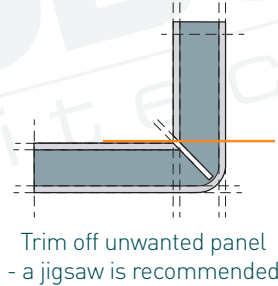
A minimum layer of 0.5mm of the core material should be retained in the groove to ensure strength and performance and superior surface finish.

Excess material in the channel of the V groove may result in cracking of the face skin when folding.

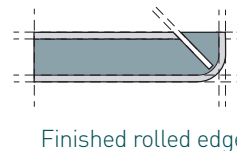
3.2



3.3



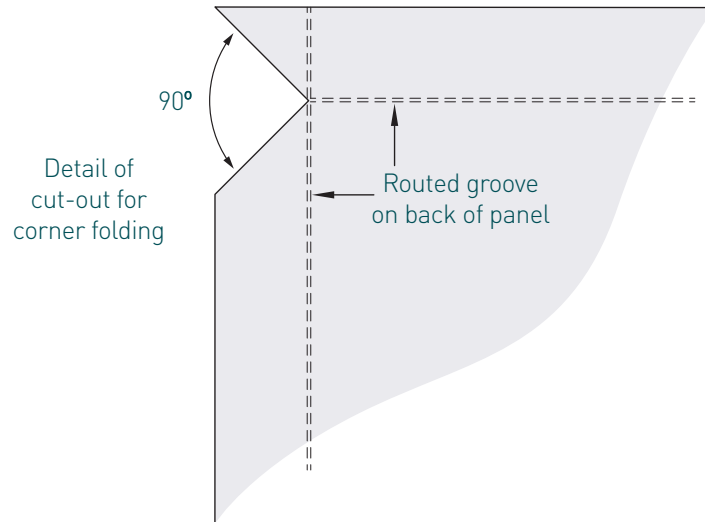
3.4



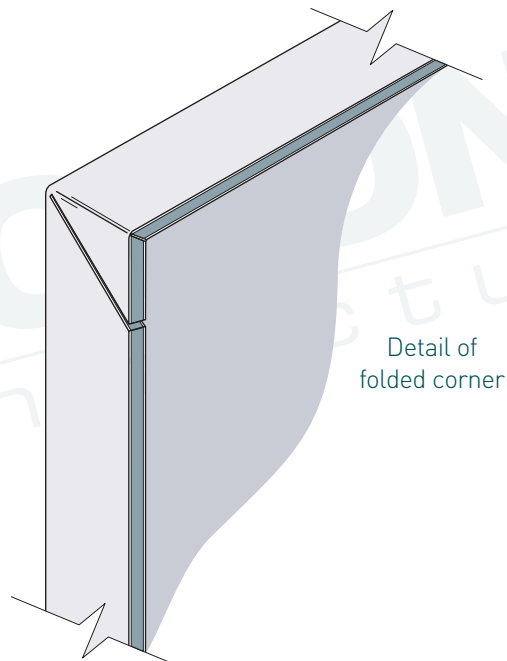
3. Creating a Rolled Edge

PANEL PROCESSING

4.1



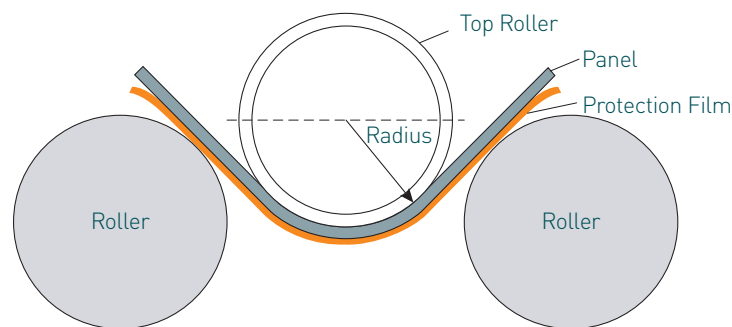
4.2



4. Corner Folding Detail

PANEL PROCESSING

5.1



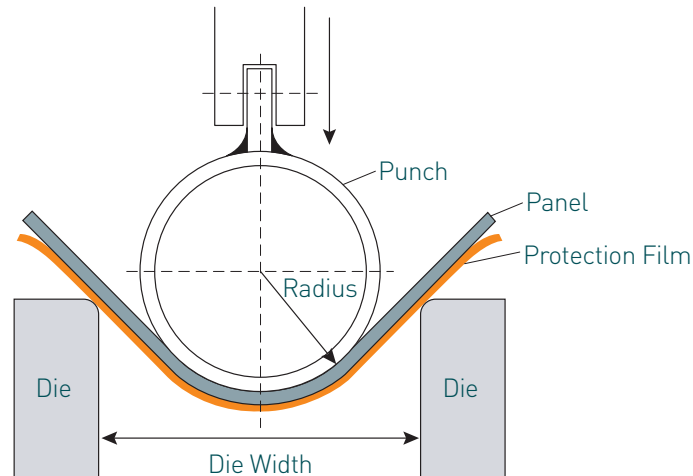
Bending PROBOND® is possible with a Pyramid Roller following these general guidelines:

- The minimum bending radius for PROBOND® without routing the back skin is forty times the thickness of the panel being curved ie., 4 mm = 160 mm minimum radius.
- The spring-back effect of PROBOND® is larger than that of a solid aluminium sheet.
- Roll the panel 3° to 5° tighter to allow for a small amount of spring back that will occur. Once the sheet is curved, however, it will remain curved.
- Do not pinch the PROBOND® between the rollers.
- To prevent damage caused to the panel surface, the protective film must not be removed during bending. Care should be taken to ensure rollers are clean, smooth and free of defects to avoid damage to the surface
- Additionally, the visible surface can be protected by using plastic pads that are 1-2 mm thick between the panel and the rollers to further shield the panel surface.
- Test bending process on sample panels prior to undertaking full production.

5. Bending with Pyramid Rollers

PANEL PROCESSING

6.1



Bending PROBOND® is possible with a bending press following these general guidelines:

- The minimum required radius is $r = 10 \times t$ (t = panel thickness)
- The radius of the top die will be the approximate inside radius of the finished panel.
- The spring-back effect of PROBOND® is larger than that of a solid aluminium sheet.
- The die edges should be rounded and smooth.
- To prevent damage caused to the panel surface, the protective film must not be removed during bending. Care should be taken to ensure rollers are clean, smooth and free of defects to avoid damage to the surface.
- The radius of the top die will be the approximate inside radius of the finished panel.
- Additionally, the visible surface can be protected by using plastic pads that are 1-2 mm thick.
- Ideal die width:
 $2 \times \text{panel thickness} + 2 \times \text{protective film thickness} + \text{punch diameter} + 15\text{mm}$
- Test bending process on sample panels prior to undertaking full production.

6. Bending with Bending Press