HYLITE®

Bending

HYLITE® can be formed by conventional metal and plastic fabrication methods. Certain specific points should be noted relating to the multilayer structure combining materials of different characteristics.

Following bending procedure should be disposed:

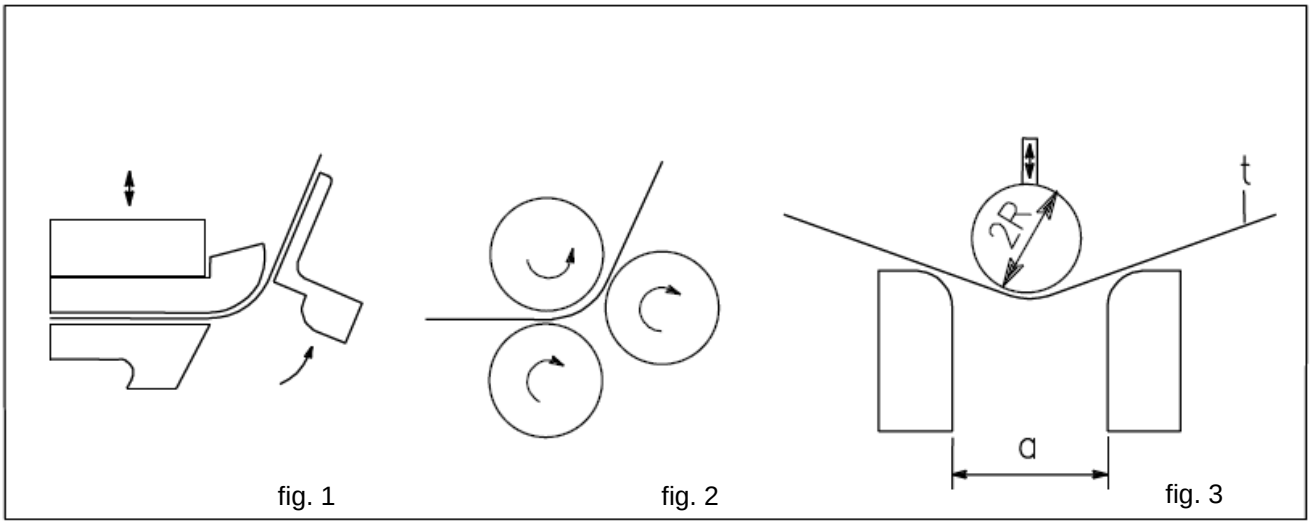

fig. 1 fig. 2 fig. 3

Bending with a folding machine (fig. 1)

When working with folding machines, the panel to be bent 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 (fig. 2)

HYLITE® can be bent with sheet metal roll bending machines – mainly with three and four-roll machines. Please make sure that the feeder does not exert too much pressure.
Bending rolls which are also used for bending other metals must be thoroughly cleaned from swarf before processing HYLITE®. We recommend ground rolls to avoid damaging the cover sheets.

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Bending with a bending press (fig. 3)

HYLITE® ®, like sheet metal, is easily formed with a bending press. The air-bending process is used when forming with a brake press.
The HYLITE® 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. The die edges should be rounded and smooth.

Ideal die width: a > 2 (R + t + 8mm)

Minimum bending radius

The minimum bending radius depends on the core material and the thickness of the sheet:

HYLITE® 1.2mm	solid core material	R_{min} = 10 x t
HYLITE® 2.0mm	solid core material	R_{min} = 10 x t
HYLITE® 3.0mm	foamed core material	R_{min} = 15 x t
HYLITE® 4.0mm	foamed core material	R_{min} = 15 x t
R_{min} = minimum bending radius t = sheet thickness		

The spring-back effect experienced when folding sheet metal is larger with HYLITE®. For production series a prototype should be made. The surface should be protected from damage by affixing plastic film or inserting polyethylene of 1 – 2 mm thickness or plastic film strips during processing.

The surface of the sheet should be free of all attachments (e.g. labels).

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