

EsaBend 3D is an extensive production preparation package that has been developed for the preparation and processing of 3D products for press brakes.

General features

- 3D visualization of the product
- Display of progress status
- Automatic product import
- Creation of press brake program
- Creation of DXF and ISO for the puncher/laser/plasma
- Autorun mode

EsaBend 3D Modules

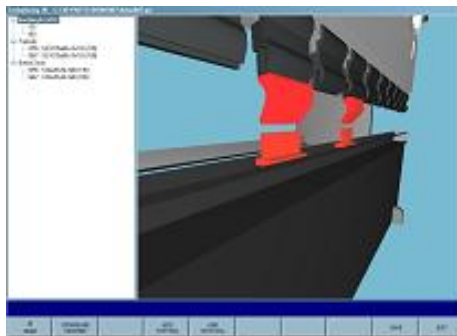
Importer module

Import the product drawing from different formats: DXF wireframe 3D, DXF with thickness 3D, DXF 2D, IGES, ...

Unfold module

Unfold the product for stretched length calculations (and optionally send it to a punching machine, shear or laser)

ToolsPlacing module



The software automatically proposes tool types in function of the detected product properties.

Manual adjustment (tool type, length, position) remains possible.

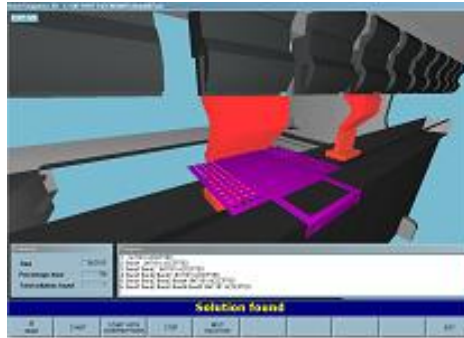
Place toptools, bottomtools, hemming tools.

Update the standard tool list by importing new tools, special tools, horned tools and custom tools.

Other features:

- Turn tools
- Add/delete tools
- Graphic tool library
- Different tool types in one setup (same height!)
- Tool overlap
- Tool backup
- Unlimited number of tools
- Library of available tool sections

BendSequence module



The software automatically searches for all possible bending sequences, according to product characteristics, machine setup, tool configuration and many other preferences.

The integrated real-time collision detection guarantees that a successful result in the software will lead to a successful result on the shop floor.

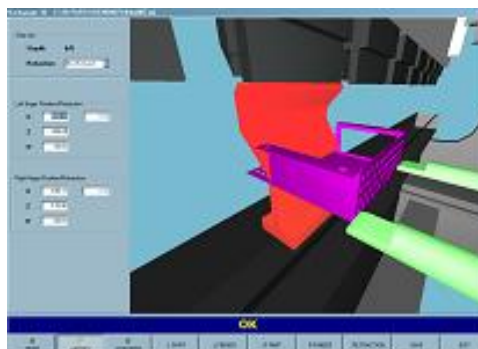
Manual adjustment of the automatically generated sequence is still possible, as well as the fully manual determination of the bending sequence.

All this is supported by a detailed 3D simulation of the virtual press brake and product.

Other features:

- Save bending sequence
- Change bending sequence
- Show selected bending sequence
- Scroll through bending steps
- Zoom & rotate 3D-visualisation
- Show machine & tools on/off
- Common bends support
- Internal flaps support
- Holes in workpieces support

Back gauge module



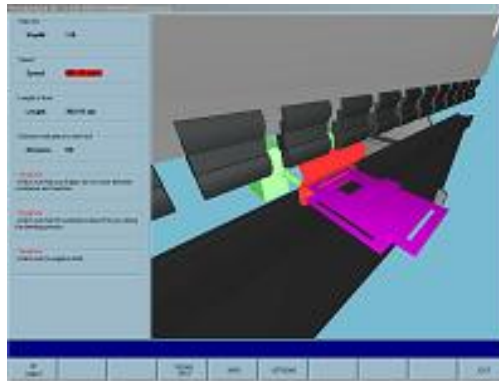
The software automatically generates back gauge and finger positions according to different adjustable parameters. Manual adjustment remains possible (absolute positions).

Retraction (all directions) is also calculated automatically for each step in the bending program.

Other features:

- Placing on predefined positions
- Possibility to use one finger
- Import any type of custom finger
- Machine transparency for better overview
- Possibility to enter info text or bitmaps (photos) per step (these appear before the step during production)
- Bitmap generation of bending steps (visual support for operator)

Security Test module



Safety is highly important. With the Security Test, the safety of the production is checked and warnings are generated in case of possibly dangerous situations during the bending process. This way the safety level for the operator can be increased.

Other features:

- Calculation & display of the speed of the product deformity during bending
- Display of the product length in front of the machine, per step
- Checking distance to next tool
- General advice concerning safety during production
- Visual real-time test
- Possibility to enter info text or bitmaps per step (these appear before the step during production)