

## OFFLINE 3D PROGRAMMING SOFTWARE

Intelligent software solutions for press  
brake simulation and unfolding

Unfold the future

SafanDarley, the inventor of the electronic press brake, has set a worldwide evolution in sheet metal processing in motion. Each day we develop innovations that will lift your efficiency to an even higher level and that will get you started on industry 4.0. With SafanDarley, you will always get on board at the top level and you will gain from the highest standard in integrated sheet metal processing.

#### SafanDarley's E-standards

SafanDarley offers innovative solutions for all sheet metal processing, with groundbreaking electronic and hydraulic techniques. Thus, we are unfolding a challenging future in which you can manufacture more Efficiently, Economically, Ergonomically and Ecologically. Complex products, large and small series: process optimisation is a fact, lean manufacturing with zero defects is a given and just-in-time production is guaranteed.

## Smart bending

SafanDarley offline 3D programming delivers complete and reliable process management. The design program includes an ingenious simulation and control module for using the press brake that can be remote-controlled, from the office for example. This limits the time during which the machine is at a standstill, thus maximizing productivity.

### AUTOPOL

The AutoPOL sheet metal software concept is a modern 3D system for off-line press brake programming and unfolding of 3D CAD files. The whole concept is based on two main packages. There are also several add-ons available for those who require specific functionality, such as AutoPOL Batch & Remote. Smart Bending with the innovative Autopol 3D offline programming guarantees full and reliable process control.



Total process control with our software solutions



**Efficiency**  
The comprehensive solution for faster production



**Ergonomics**  
Full control of the process operations with one finger



**Ecology**  
Maximum CO2 and oil reduction



**Economy**  
Maximum return on your investment

# AutoPOL Unfold

## Full and reliable process control

AutoPOL Unfold is software for calculation of flat patterns from 3D models created in CAD systems. After importing, just select the Unfold command and the flat pattern is calculated. Powerful methods are available to adapt the result to each unique work shop environment which is crucial to be able to produce parts quickly and accurately. The output can be used by all CAM software for cutting or punching.

### BENEFITS

#### Unfolding everything single-curved

This means that you are able to get flat patterns from all models from simple profiles to advanced pieces with free form surfaces.

#### Adapt to production

Important to get an accurate calculation of the flat pattern. AutoPOL will, in contrast to many others, take things like material and machine tooling into account.

#### Stand-alone and independent

Whichever CAD/CAM software you encounter. They can all output files that you can use.

#### Output ready for production

All the output from Unfold is ready for production, meaning that no additional input is needed.

#### Quick to learn and use

AutoPOL Unfold is a piece of software that is very easy to learn and use. The user interface is very intuitive and self-explaining.

Unique features to adapt the result to work shop conditions



## Total process control in a few simple steps

Fast and flawless work is the SafanDarley standard. Offline programming offers plenty of ways to do design and import 3D models to produce correct 2D drawings. If the employee using the program is also the one controlling the press brake, an NC code

for the system may be generated instantly. The program will then select the necessary tools and optimise the machine. A work planner can even switch to a different press brake at the last moment, re-generate the NC code and run a collision check.

# Start



# AutoPOL BendSim

## Fast and flawless is the norm

AutoPOL BendSim is a modern 3D software solution for offline programming of press brakes and is the complete package used for programming of press brakes. Simulating off-line will save valuable production time, minimize collision and validate the process before you have even started the machine.

### BENEFITS

#### Drastic reduction of machine down time

Instead of occupying the machine when programming on the controller, you produce parts while new programs are created on a PC.

#### Reduced programming time

Programming off-line does not only help you avoid down time, it is also faster.

#### Quicker machine set-up

With well documented and clear production reports, machine preparation and tool loading is more efficient.

#### Less scrap

With extremely accurate flat pattern calculation, due to AutoPOL's unique methods, initial scrap parts are heavily reduced.

#### Validate productivity

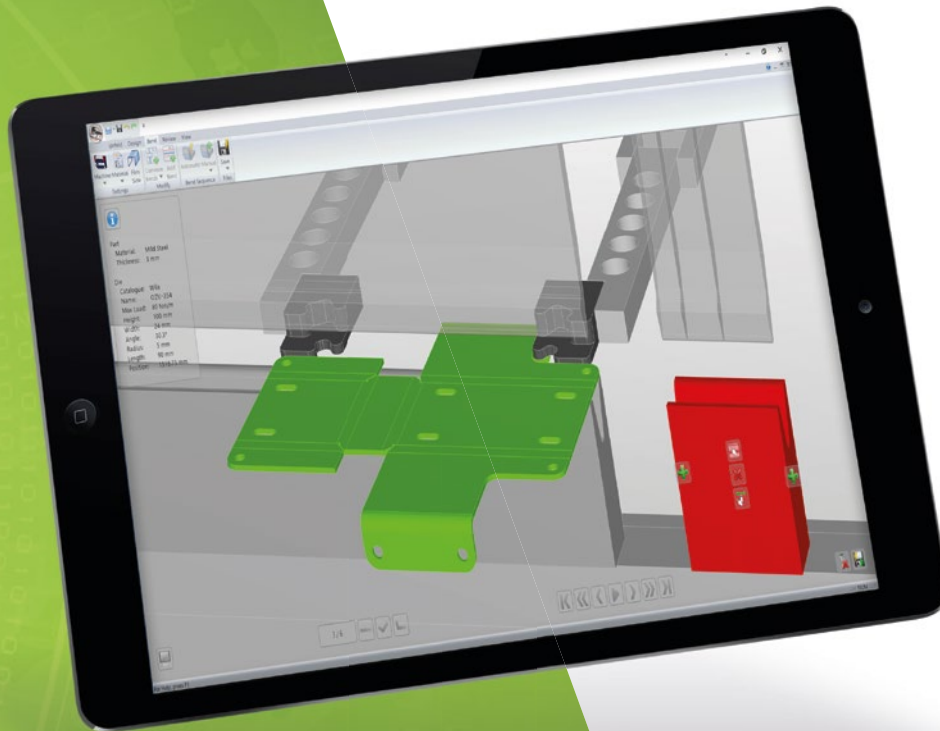
With off-line programming it's possible to discover and avoid potential manufacturing problems before the part is taken into production and this will save a lot of money.

#### Optimize production

With the smart and highly visual interface it is easy to create more efficient programs. More helpful back gauging, smart auto-sequencing and optimized set-ups are examples where AutoPOL helps to create programs with shorter cycle times.

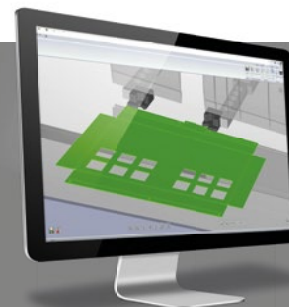
### TECHNICAL FEATURES

- Import of 3D files
- Auto sequencing
- 2D Converter
- Automatic tool set-up
- Back gauge fingers
- Tooling
- NC-code generation
- Process documentation



## Import or Create

Create sheet metal model in software of your choice



## Process

Convert 3D files into correct press brake program and perfect 2D file



# AutoPOL Batch & Remote Add-on

Batch & Remote is an add-on to AutoPOL. It enables automatic processing of multiple parts and interfacing with external software systems.

Batch processing means that multiple parts are processed by the software automatically. All necessary tasks are performed without user input, the results are reported back and production data is created. If any issues occur, for example parts being impossible to bend, they are reported back through the system and the operator can review them.

The Remote part of the add-on is built in such a way that external software systems can instruct AutoPOL to process parts automatically and receive the results back. This makes it possible for existing planning and production systems to interface with AutoPOL and use it for press brake integration.

## BENEFITS

- Automatic programming of multiple parts.
- Unattended processing.
- Dramatically reduces programming costs.
- Reports the overall outcome and for each step in the process.
- Easy manual inspection if issues are reported.
- Allows external software systems to control part processing.



Bending  
process data



DXF

## Recalculate

Recalculate the bend deduction and the product radius depending on the tooling

## Output

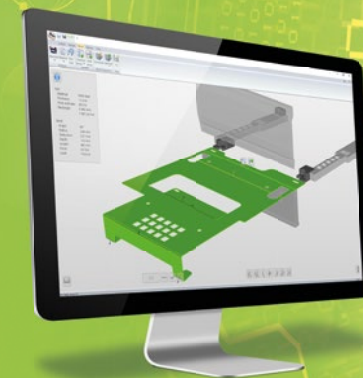
- **NC code:** an NC code with graphic bend simulation for your press brake
- **DXF:** a DXF drawing with correctly calculated flat pattern for your laser



Automated bending solutions



Sheet metal working machines



Software solutions

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