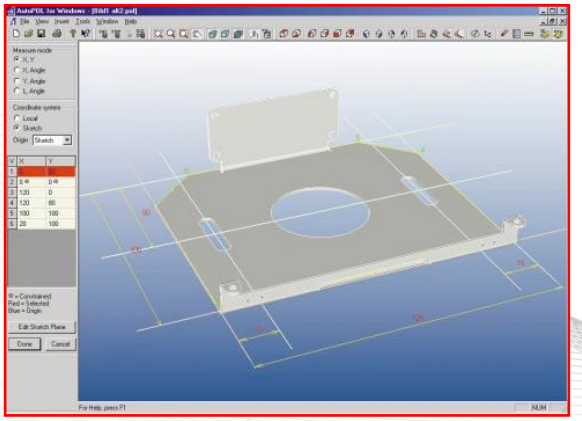
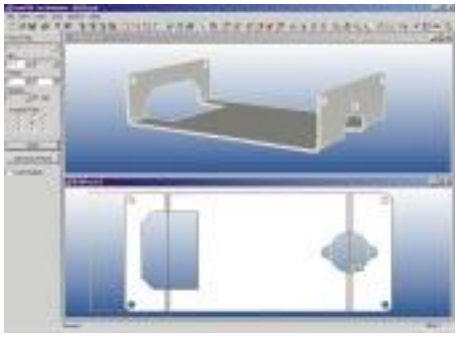
AutoPOL Designer

is a parametric design tool for the sheet metal industry to create 3D CAD-models of sheet metal parts e.g. brackets, boxes, holders, racks and other similar equipment.
Based on the ACIS® 3D Geometric modeller and technology developed by FCC Software, AutoPOL provides the most demanded features encountered in sheet metal businesses.
Part modelling is fully parametric. All dimensions can be edited at any time and the model is updated instantly. Co-operation with leading suppliers of machine equipment has influenced the product significantly.
Support for machine specific tool lists are present and allows the use of correct dimensions at the start of the modeling phase, such as creating designs with specific bend radii.
In AutoPOL Designer it's even possible to work in both 2D flat pattern and 3D model mode at the same time. The
3D model can be exported to other CAD systems as SAT or STEP files, and the 2D flat pattern in DXF file format.

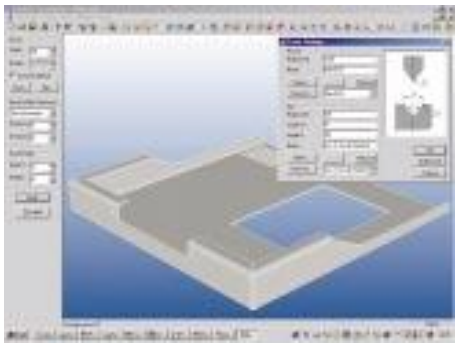
Parametric modelling

AutoPOL takes advantage of the latest programming technology and offers a CAD software with a modern user interface.
Design of lips, flanges and holes is extremely fast and easy.
The sheet metal part is created fully parametric. All dimensions can be edited at any time and the model is updated instantly.
The 3D model can be exported to other CAD systems in SAT or STEP format.
Bend allowances are automatically applied to ensure an accurate dimension of the flat pattern. Line types and colours can be selected and bend angles can be included, when the unfolded geometry is exported in DXF file format.
Drawing views can be generated in ISO or ANSI style and exported as DXF files

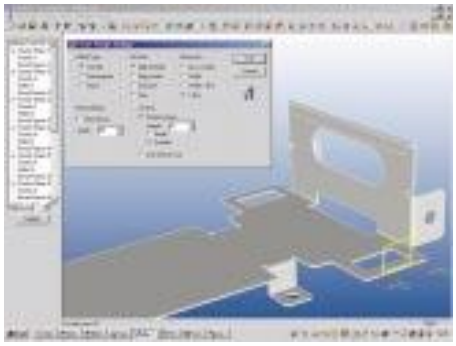




The associativity between 3D model and 2D flat pattern allows simultaneous work in both modes.



Selection of press brake tools for bend radii allows the use of correct dimensions in the modelling phase.



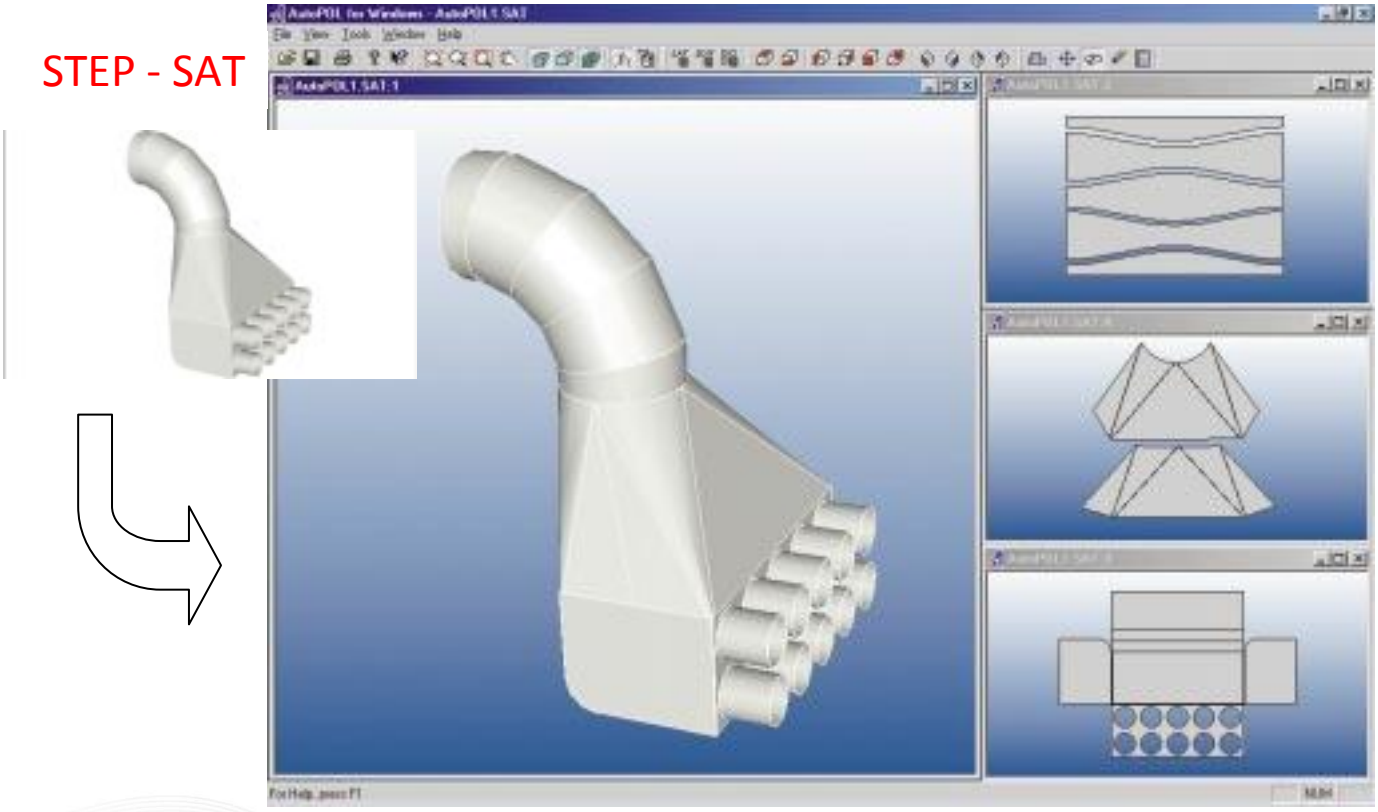
Flanges can be created using different positioning options. Automatic bend reliefs can be added and flange alignments can be selected.

Work with construction lines and create relations between these lines, holes and edges. Edit dimensions and co-ordinates via dialog boxes or stretch the model by using "click-and-drag"

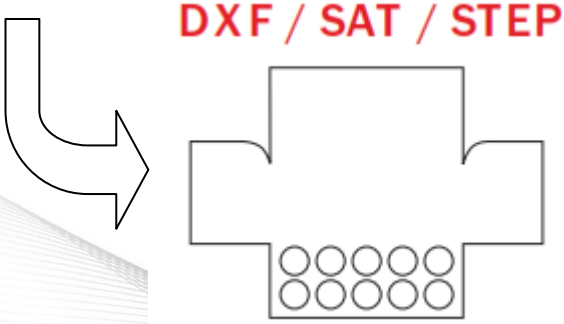
AutoPOL Unfolder

is an application for the sheet metal industry that will unfold 3D models. Based on the ACIS 3D Geometric modeller, and technology developed by FCC Software, AutoPOL provides the most comprehensive unfolder currently available. All kinds of single curved models can be unfolded.
The imported 3D model can either be a solid or surfaces. AutoPOL Unfolder generates a flat pattern from even the most complex geometry, easily and efficiently.
K-factor bend compensation can be applied to create an accurate flat pattern.
All sheet metal customers, independent of which CAD system they use, can benefit from using AutoPOL Unfolder. AutoPOL takes advantage of the latest programming technology and offers a software that ensures the highest quality an accuracy.

STEP - SAT



DXF / SAT / STEP



The main benefits of using Unfolder are:

- Unfolding everything single-curved

...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

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

- Stand-alone and independant...

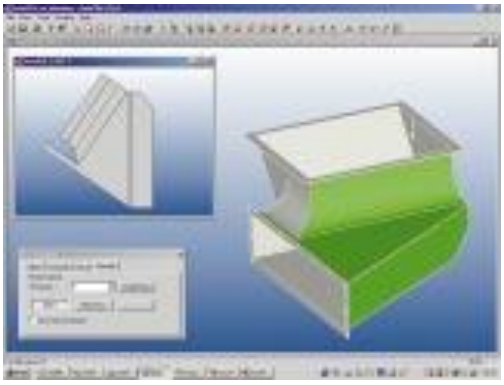
...means that you do not have to bother what other CAD/CAM software you encounter. They can all output files that you can use.

- Output ready for production.

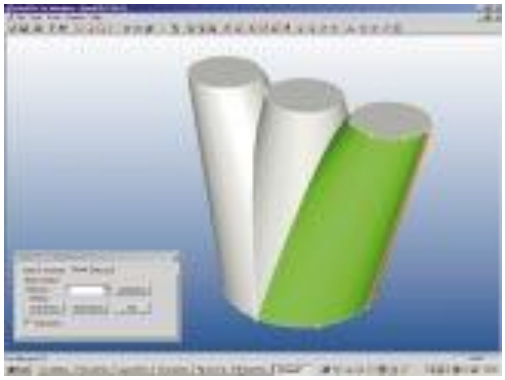
All the output from Unfolder is ready for production, meaning that no additional input is needed. The pattern contains bend lines, angles, tool info etc. and is CAD/CAM software friendly and user configurable.

- Quick to learn and use.

AutoPOL Unfolder is a piece of software that is very easy to learn and use.
The user interface is very graphical and self explaining. Actually very little computer skills are needed...



Manual selection of faces to create partial flat patterns from solid/surface models.



Unfolding of closed 3D solid/surface models. Location of the welding joint can be selected.

Configurable output when exporting unfolded geometry's as DXF files. Line types and colours can be selected. Bend angles can be included.

2D-drawing views of the imported 3D model are exported as DXF files.

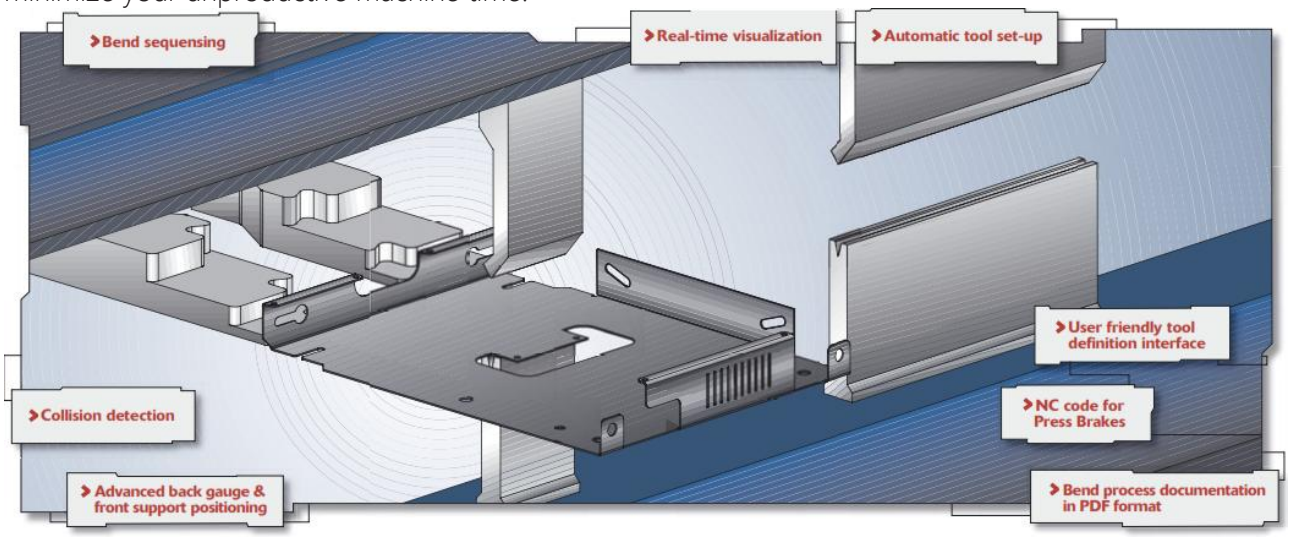
AutoPOL Bend Simulator

is the complete software solution for sheet metal fabrication. 3D models are designed from scratch or imported from any CAD systems. Bend simulation is effected and NC code is generated for most common press brake systems.

Machine productivity is the main factor for profi table production. Off-line programming and fast tool set-up accomplish this. Simulation of the bending process verifies that your product can be produced with your tools and machine specifications.

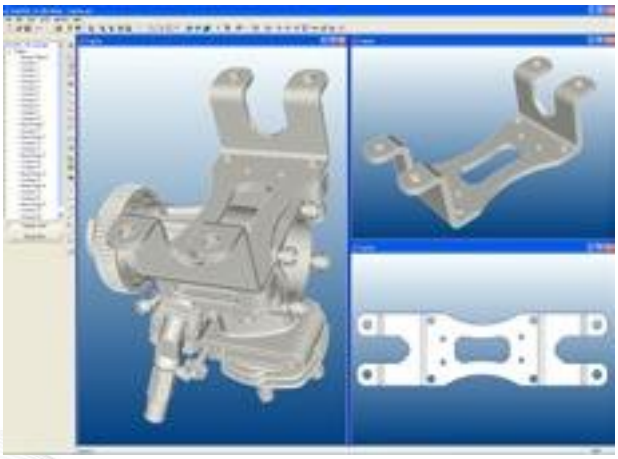
Uncomplicated, reliable design or import of 3D models is the key-factor in effective off-line programming.

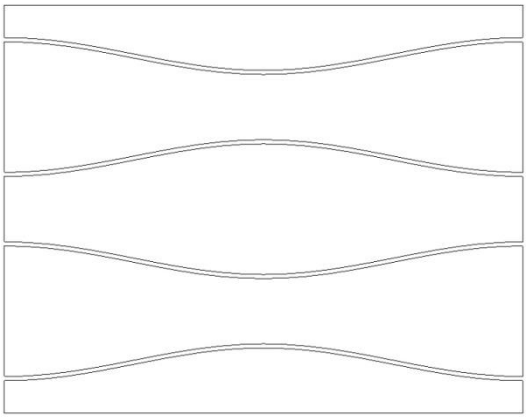
AutoPOL Bend Simulator is easy to learn and use and is your tool to speed up the off-line work and minimize your unproductive machine time.



3D assemblies including solid or surface models, created in major CAD systems, are imported to AutoPOL Unfolder for Windows.

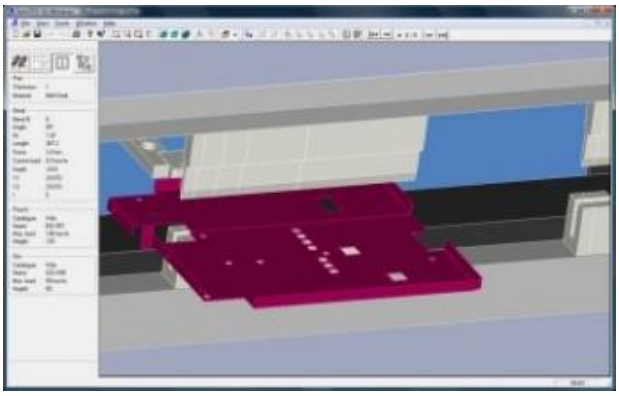
ACIS SAT, STEP, IGES and Autodesk Inventor IPT file formats are available for 3D data exchange.

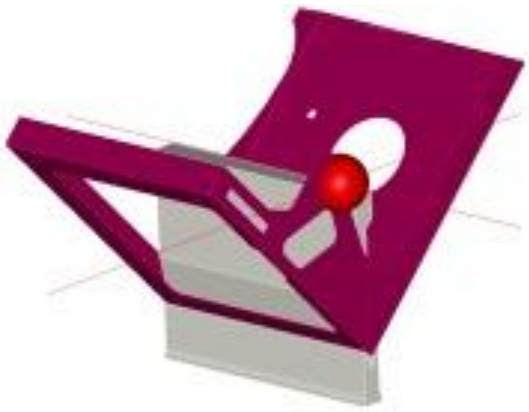




Programming a press brake off-line gives many advantages regarding productivity and economy. The main areas where you benefit are:

- 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 rigging is more efficent.





Less scrap.

With extremely accurate flat pattern calculation, due to AutoPOLs unique methods, initial scrap parts are heavily reduced. Get the first piece right!!!

Validate productivity.

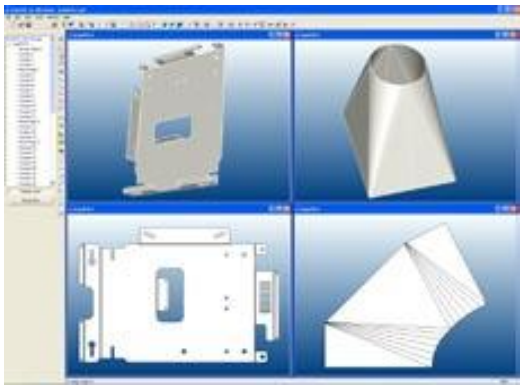
Thanks to off-line programming you can discover and avoid potential manufacturing problems before the part is taken into production. Finding out in "mid-production" costs a lot of money...

Optimize production.

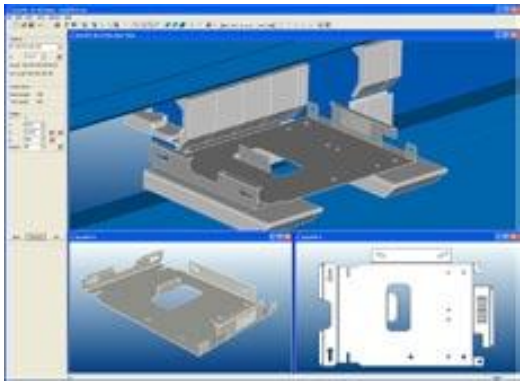
With smart and highly visual interface it is easy to create more efficent programs. More helpful back gauging, smart auto-sequencing and optimized set-ups are examples where AutoPOL can help you create programs with shorter cycle times

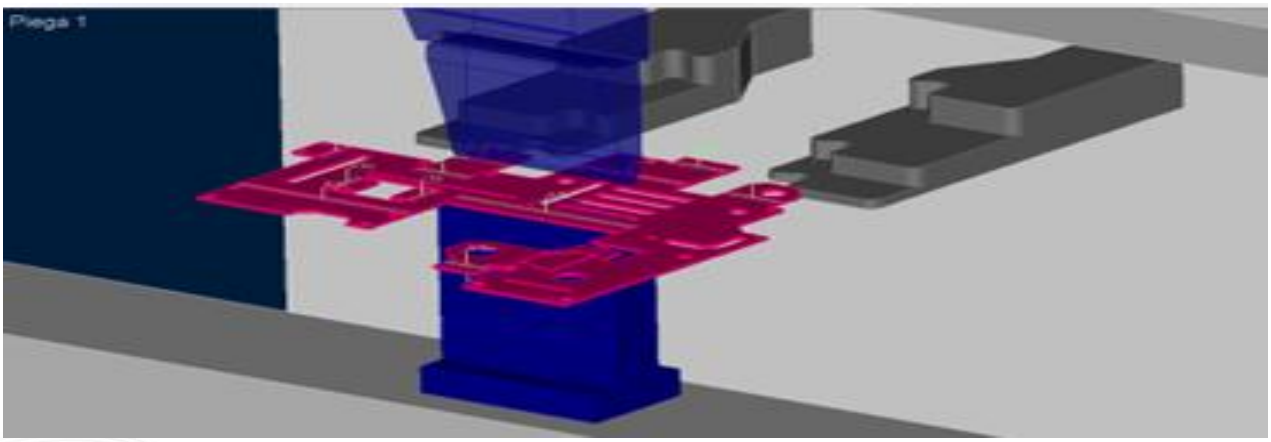
All of the above benefits are achieved through the use of advanced, but still easy to use, functionality built into the software. Throughout the whole process the user can get help selecting tools, calculating an optimal bend sequence, positioning back gauges, making efficent tool set-ups etc.

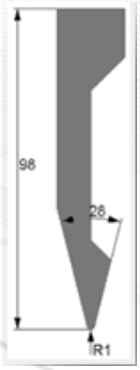
AutoPOL Bend Simulator for Windows includes design of 3D models as sheet metal profiles, brackets and panels, as well as transitions rectangle-to-round, cones, T-pipes etc.
Unfoldings of all singly curved geometries can be calculated and flat patterns are exported as configurable DXF-files.

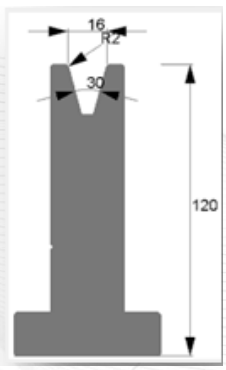


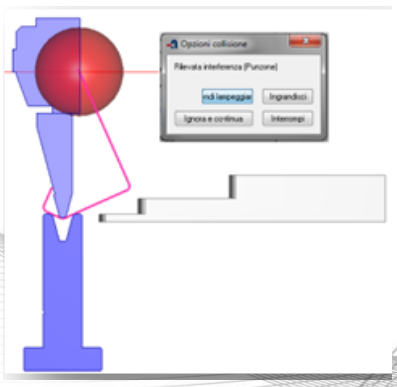
The integrated environment of design/import of 3D models, unfolding and bend simulation, offers a seamless work flow through the whole CAD/CAM process.
The same material and tooling data, which affect values of bend radii and unfolding length, are used all the way to ensure accurate results.





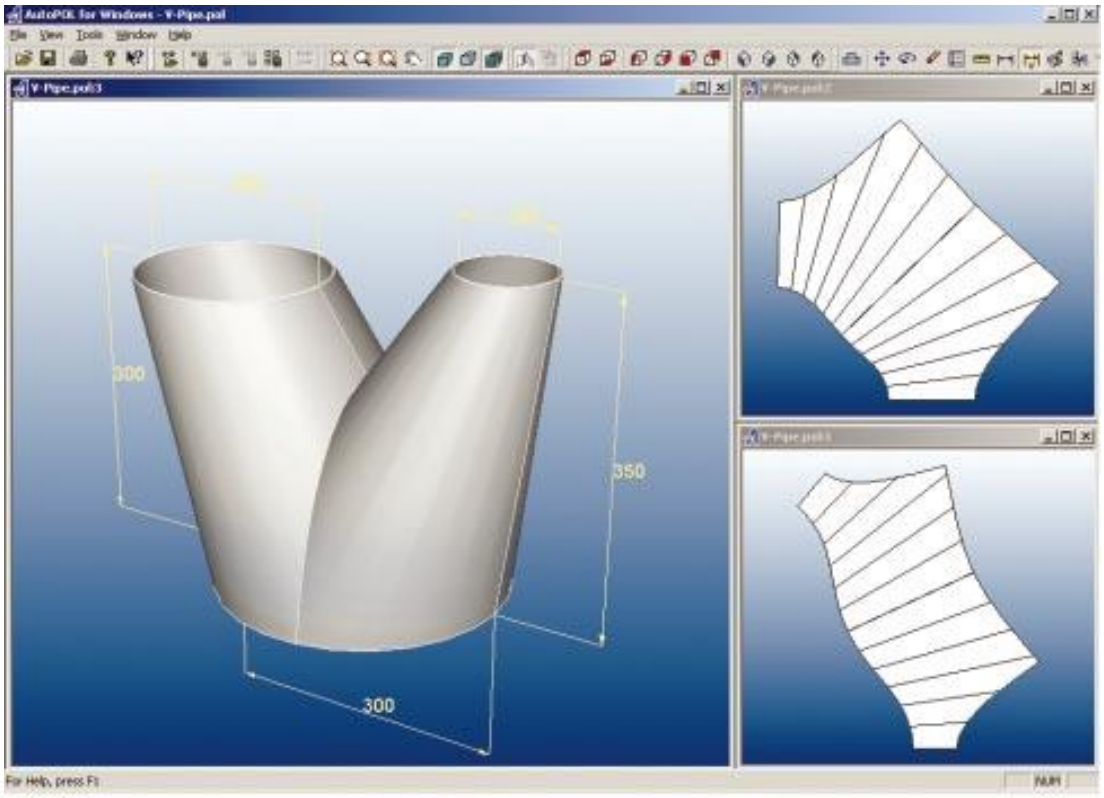






AutoPOL Piper

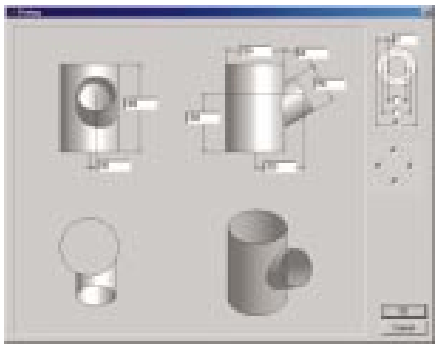
is a design tool to create parts such as transitions, Y and T-pieces, eccentric cones, elbows and similar shapes for the offshore, power plant,
HVAC and process industry. All parts are created automatically from dialog boxes by entering the model dimensions.
AutoPOL Piper for Windows can be used as stand-alone or together with any CAD software through SAT export of the 3D model.
Direct links are provided for data exchange to Inventor and SolidWorks.
AutoPOL Piper for Windows generates unfolded 2D flat patterns of the model. Output data is available as configured DXF files for plasma,
laser water jet cutting or punch press tooling machines. Bend lines and angles for press brake bending can be included.



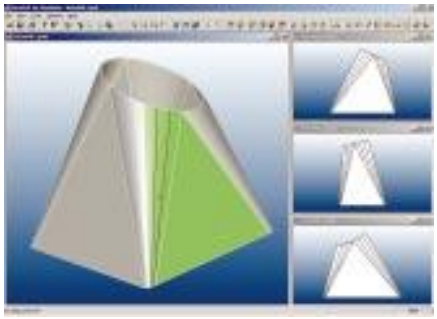
Design for manufacturing

AutoPOL Piper for Windows has a modern and intuitive user interface, which is extremely easy to learn and use. Parts are designed through dialog boxes. The user enters parameters for the part, and a 3D solid model is automatically created. The dimensioned 3D model can be printed and used as documentation for the manufacturing process. All shapes are created as CAD models with manufacturing methods in mind. This means that surfaces are always defined in the best possible way for sheet metal forming. Sheet Metal Piper AutoPOL Piper for Windows generates 2D flat patterns from the complex curves in 3D models. The 2D flat pattern can be exported in DXF format when these curves are automatically converted into basic arc and line drawing entities. This ensures acceptable geometry in CAM applications for cutting and punching

3D shapes are selected from an icon menu.

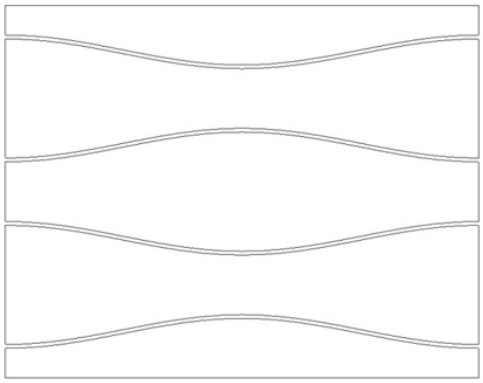


Parameters are entered in the dialog box.



Models are always made in the best possible way for manufacturing.

Curves are automatically converted to arcs and lines.
Bend lines and angles can be included.



The main benefits of using Piper are:

- As easy as it gets.

Learning to use AutoPOL Piper could not be easier.
The process contains only 3 steps and if you know how to do one model, you know them all…

- Saving time saves money.

Calculating these type of geometries manually can be very time consuming.
With Piper you will have the production data in seconds.

- Big range of models.

Piper contains the most common models needed for this type of work. Many variants of the same basic shape can be created, eliminating the need to have hundreds of model to choose from.

- Data redy for production.

All the output from Piper is ready for production, meaning that no additional input is needed.
The pattern contains bend lines with angles and is CAM software friendly.
Different production methods.
Piper works well with both bending and rolling of the parts.