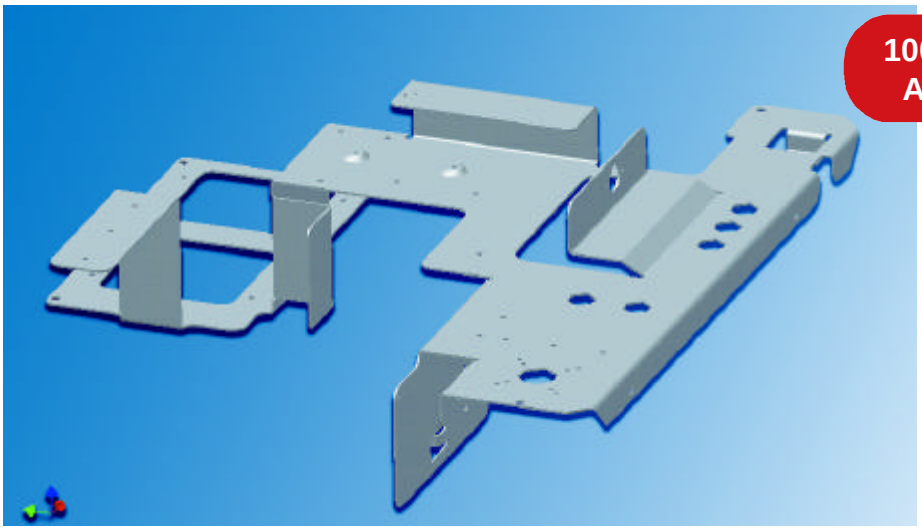
SPI - Sheetmetal Inventor

SPI - Sheetmetal Inventor is 100% integrated with the current Inventor Release from Autodesk. Unfoldings of complex sheet metal parts are calculated in seconds.

SPI - Sheetmetal Inventor provide designers and manufacturers dramatic improvements in the process for ready to manufacture products. The result is significant cost savings and shorter design cycle. The initial selection of the manufacturing capabilities ensures that only the materials, tools and process available are recommended to the designer, avoiding rejection on non-manufacturable parts and the resulting rework. The automatic flat generation provides fast, accurate flattening of 3D sheet metal parts to create the complete 2D flat information needed.

SPI - Sheetmetal Inventor offers a wide range of helpful capabilities for sheetmetal unfolding. Sharp cornered Inventor parts, lofted solids, or curved surfaces (e.g. conical, elliptic, transitions) can be transfered to 2D-drawings without problems. Unfolding of freeform surfaces is possible, bending angles >360° are allowed. As soon as a solid is modified the automatic update of the flat pattern is created including the calculation of bend allowance based on k-factor, free formula, shortening values or other attributes for special bend allowance calculation.



- **unfold of Inventor parts, which have been designed with bend radius = 0 (sharp cornered)**
- **unfold of solids which have been created by lofting commands**
- **unfold of curved surfaces e.g. conical, elliptic, transitions**
- **unfold of freeform surfaces (Nurbs).**
- **unfold of bend angle more than 360°**
- **virtual corner split**
- **modification of type of material**
- **automatic generation of the flat pattern, including calculation of bend allowance**
- **calculation of bend allowance based on k-factor, free formula, shortening values**
- **attributes for special bend allowance calculation**
- **flat pattern is generated as 2D drawing**
- **update of flat pattern after solid modification**
- **options for automatic corner cut-out shapes in the flat e.g. circle, square, oblong, tear**
- **clash detection during unfold procedure**
- **material database (customisable)**
- **support of metric and imperial**
- **cost estimation, transfer to external calculation programs**
- **transfer via .DXF file to NC programs (nesting, punch- and lasercutting)**

SPI GmbH

Ahrensburg
Kurt-Fischer-Straße 30a
D - 22926 Ahrensburg
Tel. 04102 - 706-0
Fax 04102 - 706-444

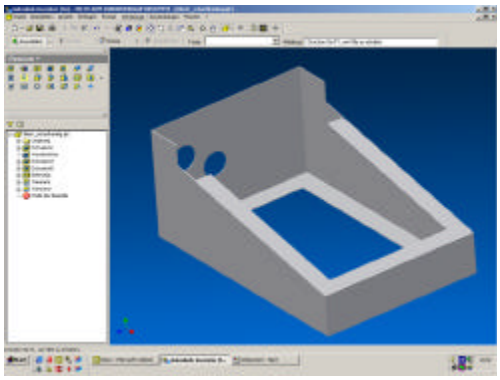
Herne
Westring 303
D - 44629 Herne
Tel. 02323 - 925 129
Fax 02323 - 925 128

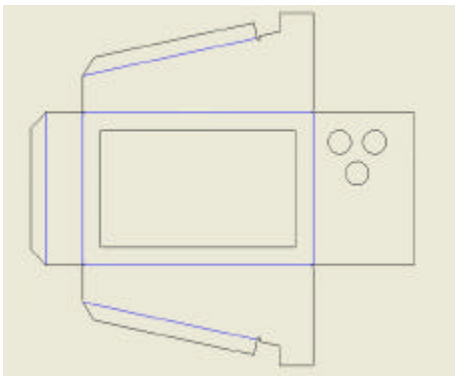
Stuttgart
Zettachring 4
D - 70567 Stuttgart
Tel. 0711 - 728 59 07
Fax 0711 - 728 59 09

http://www.spi.de
info@spi.de

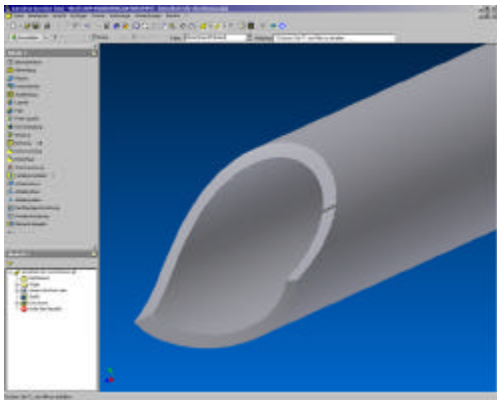
SPI - Sheetmetal Inventor enhances the functions of the CAD system Autodesk Inventor. Benefits: With SPI - Sheetmetal Inventor high sophisticated sheet metal requests will be solved. The files can be transfered to NC programs and the bend simulation software SPI - VBend.

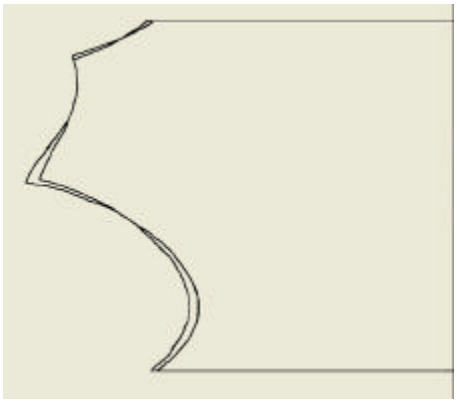
Parts, which have been designed with bend radius = zero can be unfolded with the function "SPI virtual split ".



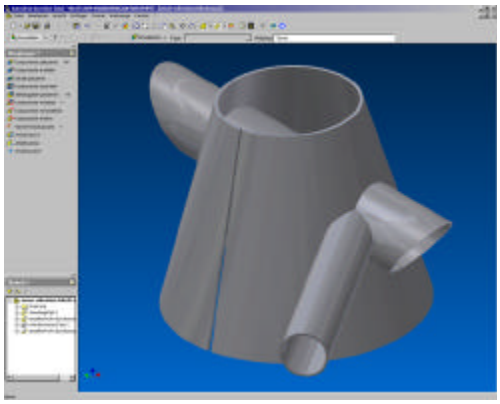


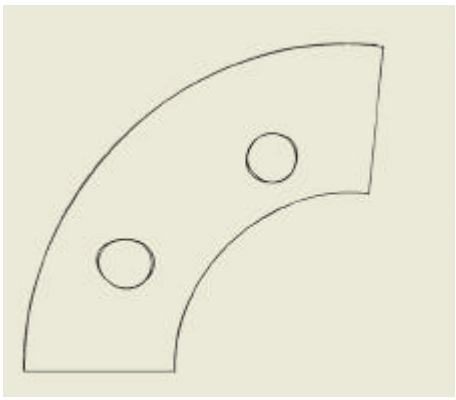
Pipes, which have non perpendicular cuts can be unfolded without any problems. The unfold shape shows the inner and outer contour of the cut.





The unfold shape of cones, even with axes is generated in seconds.





No unfold problems with conversions from polygon to circular.