SS-Unfold is a 2-D and 3-D sheet metal unfolding solution designed to assist the sheet metal design professional in the development of flat blanks. Available as an add-on to AutoCAD or as a stand-alone solution, SS-Unfold provides sheet metal flat blank development tools not found in conventional CAD systems.

**Three Dimensional Unfolding**

SS-Unfold is the most full featured unfolding system available today for flat blank development from 3-D wire-frame models. All unfolding is based on a user defined material type, bend radius and unfolding calculation method.

Models can be created with either straight line or arc bend representations. Material thickness can be represented or a single surface wire-frame drawing can be used. The model can be unfolded around any desired part plane.

The flat blank is precisely created. Bend lines are created on a separate layer for easy display control. And each bend line is assigned its specific bending data for creation of a bending table!

**Two Dimensional Unfolding**

SS-Unfold includes 2-D unfolding from a standard orthographic drawing. 2-D sections are unfolded to a flat blank profile. As the formed profile is straightened, all appropriate bend allowances are accurately calculated and reflected in the updated geometry.

Any geometry in the drawing can be associated to any segment of the 2-D profile during the unfolding process. This allows holes, notches, or any other part feature to be carried through the unfolding process and properly positioned for flat blank development.

**Automatic Bend Charts**

All bending data is stored with each bend in the unfolded part. This includes a bend reference number (with a corresponding reference balloon on the bend), bend allowance, neutral axis, bend radius, form radius, bend angle, over-bend angle, and bend direction. All bending data can be sent directly to a printer, saved in a text file, or a bend table can be positioned in the drawing.
Three Dimensional Folding

SS-Unfold also includes the ability to fold 2-D flat parts into 3-D wire-frame models. Perfect for verifying original designs and engineering changes! Simply draw bend lines at the desired locations, or use the existing bend lines if the part was previously unfolded with SS-Unfold. Assign the desired bend data and construct a 3-D model!

Materials Library

The basis of all unfolding operations is an advanced materials library that allows the design engineer to control the outcome to match known data. Along with material properties including shear, yield and tensile strengths, the neutral axis of each material can be varied with changes in the bend radius and/or material thickness. This allows the bend allowance calculated to be more accurate based on material thickness and the radius of a specific bend.

Also assigned to each material is a spring-back chart. By assigning the known data of a specific material to the chart, you can have SS-Unfold tell you the over-bend angle required for each bend!

Corner Joint Development

A unique feature of SS-Unfold is the ability to develop a corner joint on any inclusive angle from a standard 2-D orthographic drawing. Simply unfold the part profile and select the object in the plan view that represents the joining corner. The complex corner geometry is automatically created!

What about unfolding Solid Models?

To unfold solid models, you’ll want to use Striker’s Mechanical Desktop based SS-Solid Unfold. But be aware that most solid model unfolding packages WILL ONLY UNFOLD SOLID MODELS! And in today’s world of diverse CAD systems it is rare if solid models is all that you need to unfold. So you may need both, SS-Solid Unfold to unfold your Mechanical Desktop solid models and SS-Unfold to unfold all of the other parts that you will no doubt be faced with!

For additional information on SS-Unfold or any of the Fab Professional sheet metal manufacturing products, call Striker Systems at:

1-800-950-7862