

DIE Professional is a comprehensive suite of AutoCAD based software products designed to automate many facets of the stamping die design process. DIE Professional software modules can operate independently to address specific design requirements, or as an integrated solution encompassing all aspects of the die design process from initial part design through generation of die component detail drawings. This document provides a brief overview of the software modules available in the DIE Professional family. For a more detailed look, we invite you to visit our web site or contact a Striker Systems sales professional.

SS-Design is an advanced mechanical design and drafting system for AutoCAD® with many features specific to the design of sheet metal parts. SS-Design provides the standard interface to the DIE Professional product line, keeping an advanced set of design and editing tools available at all times.

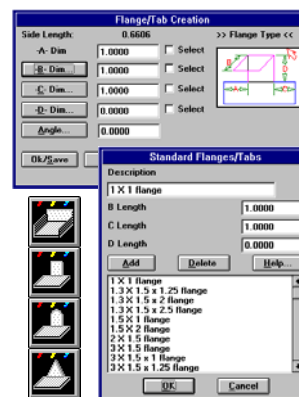


SS-Design provides features for the setup and maintenance of AutoCAD® drawings.

- **Layer Control** - a layer control system standardizes layers by automatically assigning specific design elements to predefined layers.
- **User Library** - an advanced user library allows drawing components to be saved and shared with other users, from nuts and bolts to complete drawings.
- **Drawing Borders** - SS-Design includes an advanced system to create intelligent drawing borders on the fly, complete with all title block and revision level information.

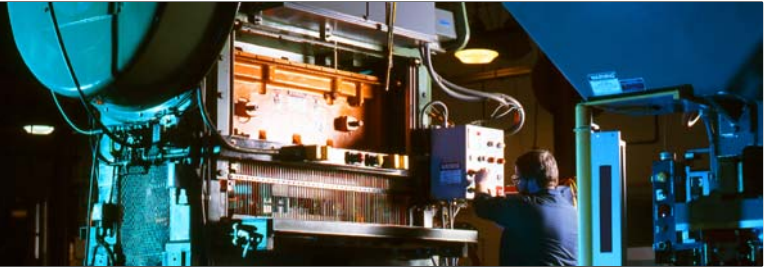
SS-Design reduces 2-D and 3-D design functions to a fraction of the time required with conventional AutoCAD®. Through the intuitive menu structure, designers quickly access commands to create a variety of shapes. Flanges, tabs, offsets, extrusions and notches are parametrically created with a single command selection. Each design function includes a library for storage and retrieval of common settings.

Parametric shape recognition is also provided, allowing design features to be quickly modified with a change of dimensional data.



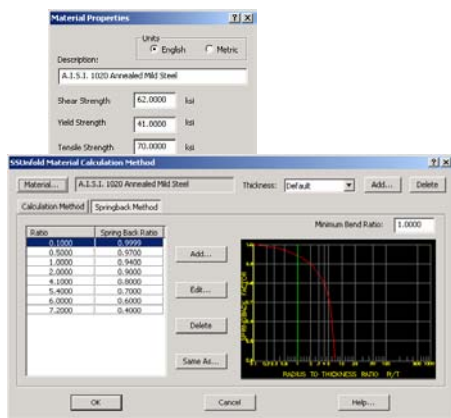
SS-Design includes an automatic dimensioning system that fully dimensions complex parts in a matter of seconds. The Auto Dimension Control Dialog allows dimension settings to be saved under a user-defined name, to be retrieved from the dimension style library as needed.

HOLD TABLE			
	Dimensions	X	Y
A	0.0938#	1.0305	1.9491
B	0.0938#	1.0305	1.4600
C	0.0938#	1.0305	0.9709



SS-Unfold

SS-Unfold is a full-featured two-dimensional and three-dimensional unfolding solution for AutoCAD®. Flat parts are created automatically, and partial forming stations are quickly generated. Also included in SS-Unfold are three-dimensional folding features and transitional unfold routines.



Material Setup

SS-Unfold includes an advanced calculation system providing unparalleled control over end results. The unique neutral axis correlation system allows calculated results to vary based on changes in thickness and bend radius as well as the selected material. A reverse calculator allows known history to be entered into the calculation system, thereby allowing SS-Unfold to generate results from reliable shop data.

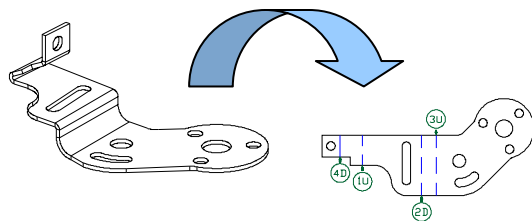
SS-Unfold also includes a spring-back ratio chart, allowing over-bend requirements to be generated.

Three Dimensional Unfolding

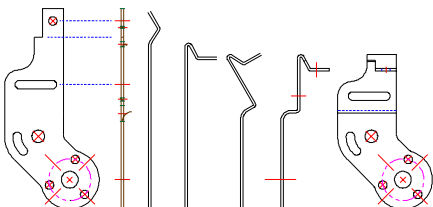
SS-Unfold is the most full featured unfolding system available for flat blank development from three dimensional wire-frame models. Quickly assign bend properties to the model and the flat part is created in a matter of seconds.

Information including bend angle, spring-back angle, bend direction, bend radius, and form radius can then be printed in report or drawing table format.

Also included is a folding system allowing flat parts to be folded into a three-dimensional wire-frame model.

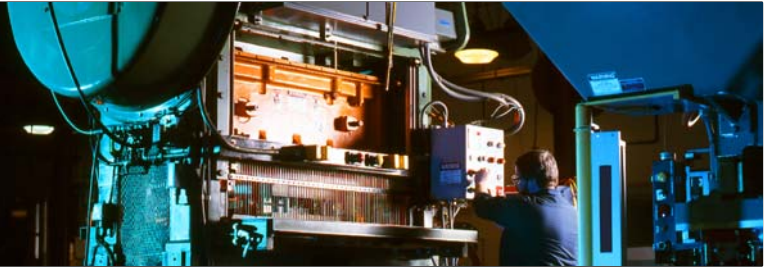


BEND LINE DATA TABLE							
Name: AE-107 Bracket							
Material: AISI 1020 Annealed Mild Steel							
Thickness: 0.06							
Bend Num	Bend Allow	Neutral Axis	Bend Radius	Form Radius	Bend Angle	Springback Angle	Bend Dir
1	0.07	33.33	0.03	0.03	152.00	158.46	UP
2	0.10	33.33	0.04	0.04	90.00	94.26	DOWN
3	0.44	50.00	0.25	0.19	90.00	112.17	UP
4	0.07	33.33	0.04	0.04	62.00	64.93	DOWN



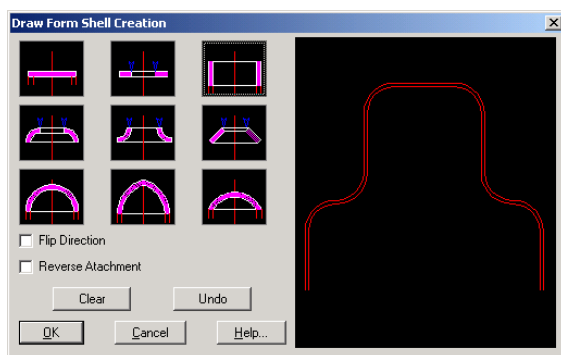
Two Dimensional Progressive Unfolding

The task of unfolding partial forming stations is handled completely by SS-Unfold. Simply specify where and how much to unfold the final cross section and generate sections for each forming stage. A form die evaluation can also be implemented to apply required over-bend based on material properties.



SS-Draw Form

SS-Draw Form is an advanced draw form development system for AutoCAD® that assists the designer with the creation of complex cylindrical and rectangular shells or the evaluation of existing drawn shells.

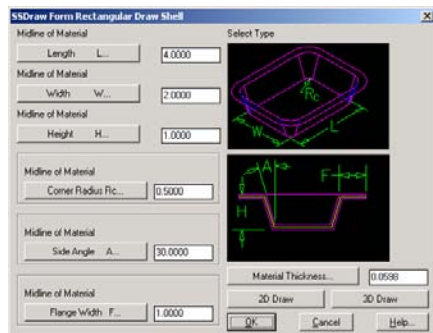
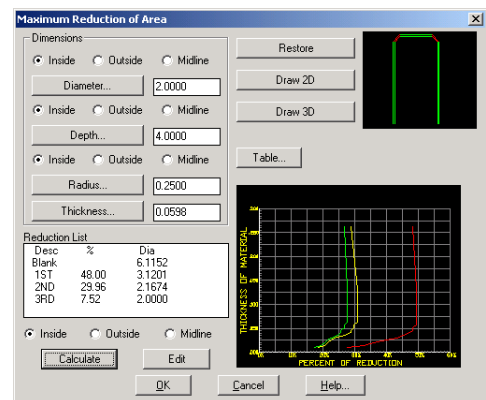
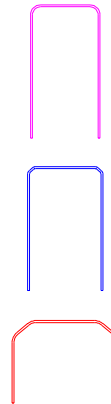


Cylindrical Shell Creation

SS-Draw Form includes a cylindrical shell creation dialog that offers fast creation of cylindrical draws. The cylindrical shape is defined through selection of shell creation features. Each feature then has dimensional information applied. With the definition complete, the cylindrical shell can be generated as an AutoCAD® 2-D profile, 3-D wire-frame, or 3-D solid model. The estimated pre-form flat blank is also generated.

Progressive Shell Development

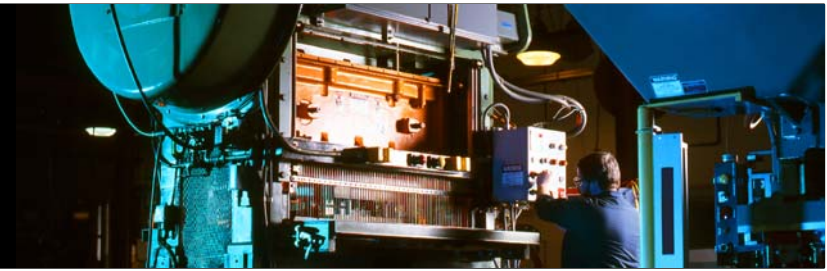
SS-Draw Form uses a reduction database to assist the designer with calculating the maximum percentage of reduction for cylindrical shells. SS-Draw Form will parametrically layout all preliminary draws and a finish draw while taking into account needed angles of corner and corner radii of the draw forms. The percent reduction, material and thickness database can be easily modified to perform calculations based upon user knowledge and experience.



Rectangular Shell Development

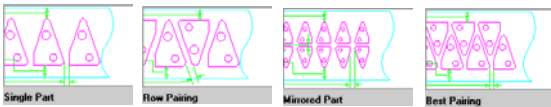
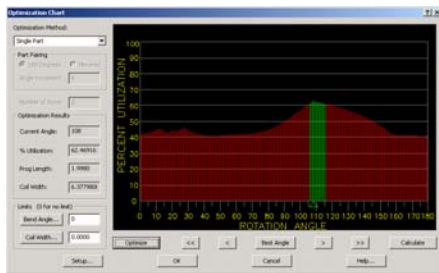
SS-Draw Form includes the development of drawn rectangular shells. Four shell types are available – tapered and non-tapered, with and without flanges. Shell dimensions are applied through the intuitive dialog interface. With the shell definition complete, the rectangular shell can be created as 2-D or 3-D AutoCAD® geometry. The estimated pre-form blank is automatically generated to assist with the manufacturing process.

DIE Professional™ 2009



SS-Strip Design

SS-Strip Design assists in the creation of progressive strip layouts in AutoCAD®. The designer retains complete control of part orientation, while SS-Strip Design generates recommended layouts for both single and multi-part out dies. Piercing and blanking tooling can then be applied and the progressive strip layout is automatically generated.

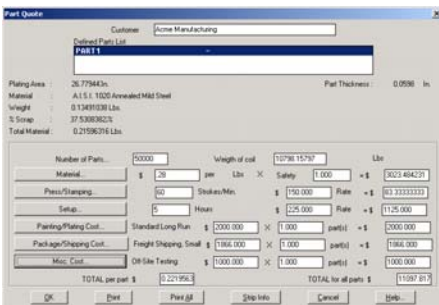
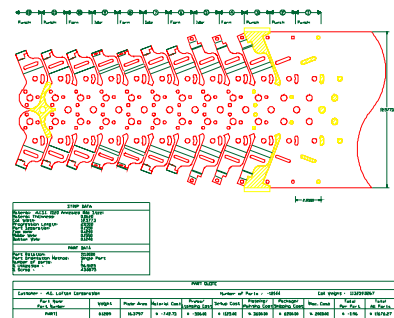


Optimize Strip Layout

Determine whether your strip layout will be single or multi-part out, mirrored or paired, and let SS-Strip Design calculate the part orientation for optimum material utilization. Calculations consider user-defined parameters such as coil width and material grain. The intuitive user interface highlights the optimum angle and displays the percent of utilization for each degree of rotation. Considering that 70% of the cost of a stamping may be for material, SS-Strip Design can reap tremendous savings over the life of the die.

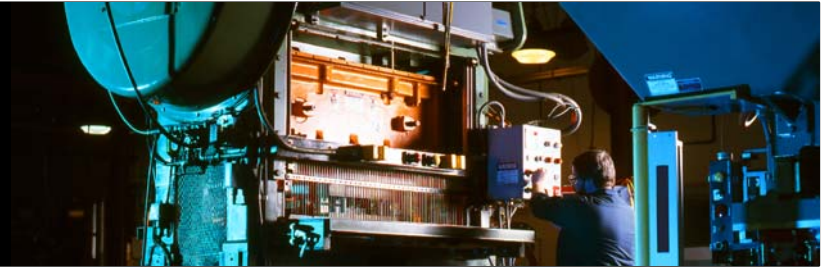
Strip Development & Dimensioning

With part orientation defined, piercing and blanking tools can be applied to a single station representation. During tool definition, the station number for the operation is applied along with a designation of cutting, non-cutting, and heel edges. After tool definition, the progressive strip drawing is automatically generated. Folding operations can then be applied at the desired stations with the result being a fully dimensioned, three-dimensional representation of the progressive strip layout.



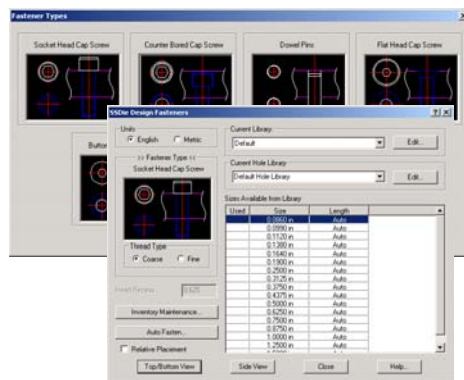
Part Cost Estimation

Quickly generate total cost and per piece cost estimates. With the stock strip in place and all tooling information applied, SS-Strip Design uses the tooling intelligence along with the materials library to determine factors pertinent to part quoting and the design and performance of the die. All information is accessed through interactive user dialogs and a cost estimation report is easily generated.



SS-Die Design

SS-Die Design is a comprehensive collection of software utilities that tremendously advance the productivity of die designers using AutoCAD®. Through the construction of an intelligent die model, many of the time-consuming tasks required by conventional die design techniques are reduced to a matter of seconds!

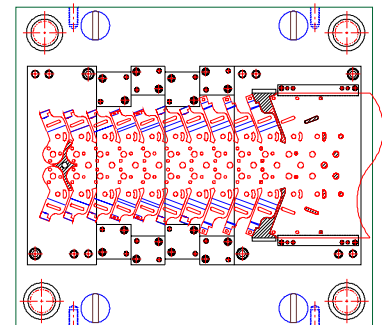


Electronic Component Catalogs

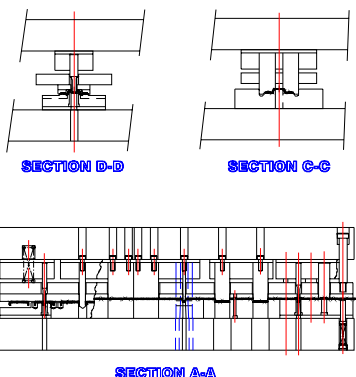
The heart of the SS-Die Design system is a series of electronic component catalogs. Standard items including punches, buttons, fasteners, springs, etc., can be quickly inserted into the die model. Tool steel components are easily defined. But unlike generic CAD component libraries, SS-Die Design components carry vital information that is used for design automation. And for non-standard items, a component user library is available for easy storage and quick retrieval of any die components.

Intelligent Die Model

The design process with SS-Die Design is quite similar to a conventional die design process. A two-dimensional die plan and punch plan are defined around the stock strip. The power of SS-Die Design comes with the construction of this die model. Each die component is intelligent, carrying information that not only defines the component, but also defines its relationship to the rest of the model. The resulting design is a database of information offering tremendous automation capability.

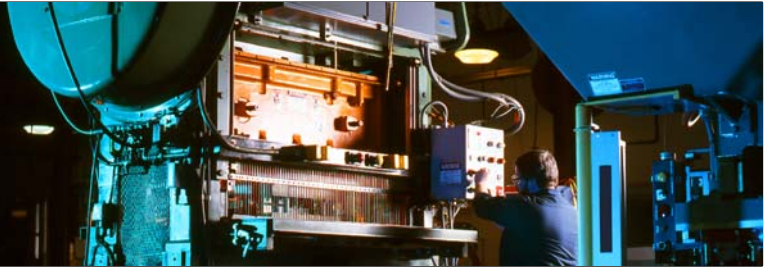


DIE PLAN



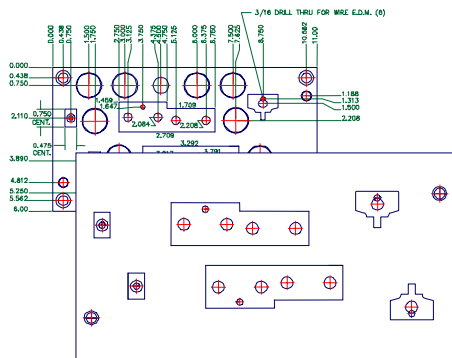
SS-Die Design Features Include...

- Auto detail drawings
- Auto section drawings
- Auto BOM creation
- Auto punch selection
- Auto fastener placement
- Auto creation of solid model components
- Auto selection of die shoes
- Definable fastener patterns
- Project component views
- BOM editing tools
- Standard notes library
- Standardize object layers
- Streamline revision process



SS-Wire EDM

SS-Wire EDM is a two-axis and four-axis wire EDM programming software for AutoCAD®. SS-Wire EDM offers a truly seamless CAD/CAM environment, generating NC programs directly from the AutoCAD® drawing file.

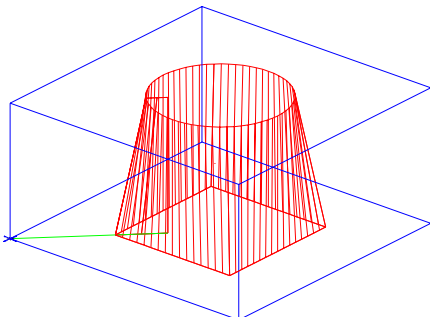
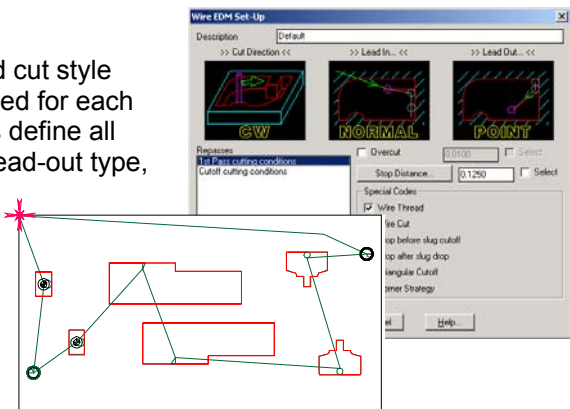


Seamless use of Die Drawings

As an available module of the Die Professional product line, SS-Wire EDM operates directly within the AutoCAD® environment. Drawings created through Die Professional or with conventional AutoCAD® can have a tool-path applied and NC programs generated without ever leaving the drawing file. Programming time is potentially reduced since there are no time-consuming data translations to deal with. Training time can also be minimized because the seamless environment of SS-Wire EDM makes it unnecessary to learn separate CAD and CAM solutions.

Two-Axis Programming

SS-Wire EDM starts with the selection of a user-defined cut style from the AutoCut Styles Library. A cut style can be saved for each cut technique that may need to be repeated. Cut styles define all cutting parameters including cut direction, lead-in and lead-out type, the number of passes required, and compensation and taper information for each pass. With a cut style designated, programming is as simple as selecting the AutoCAD® objects to process. The tool-path is applied and the NC program can be generated at any time. SS-Wire EDM even allows multiple NC programs to be generated from the same AutoCAD® drawing file!



Four-Axis Programming

SS-Wire EDM offers true four-axis programming directly from the AutoCAD® drawing file. Simply select the objects that define the X,Y surface and the objects that represent the U,V surface. The tool-path is automatically created and the NC program generated.

The following system requirements should be adhered to for DIE Professional 2009:

- AutoCAD 2009 or AutoCAD Mechanical 2009
- Intel® Pentium® 4 processor or AMD Athlon®, 2.2 GHz or greater
Intel or AMD Dual Core processor, 1.6 Ghz or greater
- Microsoft® Windows Vista™, Windows® XP (SP2) operating systems
- 1 GB RAM or greater
- 400 MB free disk space for installation (estimate - varies with products installed)
- 1024x768 VGA with True Color
- Microsoft® Internet Explorer® 6.0 (SP1 or higher)

Additional requirements for Windows Vista:

- Intel® Pentium® 4 processor or AMD Athlon®, 3.0 GHz or greater or
Intel or AMD Dual Core processor, 2.0 Ghz or greater
- 2 GB RAM or greater
- 2 GB free hard disk available not including installation
- 1280 x 1024 32-bit color video display adapter (True Color) 128 MB or greater Direct3D® capable workstation class graphics card.

NOTE: The above system requirements are for 32-bit installations only. If you will be installing on a 64-bit system, please contact Striker Systems for additional 64-bit information.

About Striker Systems

For more than twenty years, Striker Systems has focused on providing integrated manufacturing solutions for the metal forming and fabrication industries. Our mission is to deliver our clients the most productive software technology through innovative industry research, excellence in product development, and a customer support system second to none.

A private corporation headquartered in White House, Tennessee, Striker Systems has shown extraordinary stability in an often tumultuous market. As many in our industry have come and gone, Striker Systems has remained a consistent leader. Our management team is devoted to the long term success of Striker Systems for our customers, our employees, and our community.

Although Striker Systems maintains a global presence, our management, product development, and customer service teams are located at our Tennessee headquarters. This allows us to respond quickly to continually evolving technology and gives our customers confidence - knowing that our service department is directly supported by the architects of our products.

We appreciate you considering Striker Systems for your metal stamping software needs. Striker Systems operates through a direct sales team as well as a network of key distributors. It is our sincere desire to provide the necessary information for you to make an informed, confident decision as you consider our products and services. If you have additional questions or if you would like to arrange a DIE Professional demonstration specific to the needs of your organization, please don't hesitate to call a Striker Systems Sales Team member today.



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