

: smirt dieshop

paperless die design information management

SMIRT DieShop lets die makers, pattern makers, machinists, foremen and other users extract the information they need to build a die directly from a solid model without the need to generate plots / drawings (a true paperless environment). Powerful annotation and information sharing tools make possible to improve and speed up the information flow through the entire organization.

Information from multiple CAD sources

Different CAD sources are managed (VISI Modeling, CATIA V4, CATIA V5, UG NX, Autodesk Inventor, IGES) to offer a single look and feel to the final users. All the information available in the CAD data (geometry, stock list and technology) is retrieved and made available in the easiest way to be used for design review and analysis for shop floor activities. This is our DNA.... Solid Model Information Retrieval Technology.

Simple intuitive user interface

Recognizing that shop floor personnel are getting paid to build dies and not to be CAD/CAM operators, SMIRT DieShop has been designed to be very easy to use with minimal training required. SMIRT DieShop uses a simple, intuitive plain text interface for all operations (no icons to memorize) and is specifically designed for the needs of die makers, based on a real life die making experience.

Sharp, clear and fast graphics

The graphics representation available in SMIRT DieShop is designed to make it easy to understand the structure and functionality of the die assembly. The fast graphics engine enables the user

to zoom, move, rotate and change view mode in real time, without waiting for graphic regeneration. Standard orthogonal and isometric views are always available and only one mouse click away.

Stock list and balloons

The stock list information (item ID, quantity, material, commercial code and others) retrieved from the CAD data is available in SMIRT DieShop to interactively navigate through the parts and components of the die: select one or more items from the stock list to display them (or add to display). Interactive balloons are available with stock list information to get item information by simply picking the relevant component in either 3D or section view modes.

industry accepted solution

short learning times

multiple CAD source import

simple, intuitive user interface

super fast graphics

automatic stock list extraction

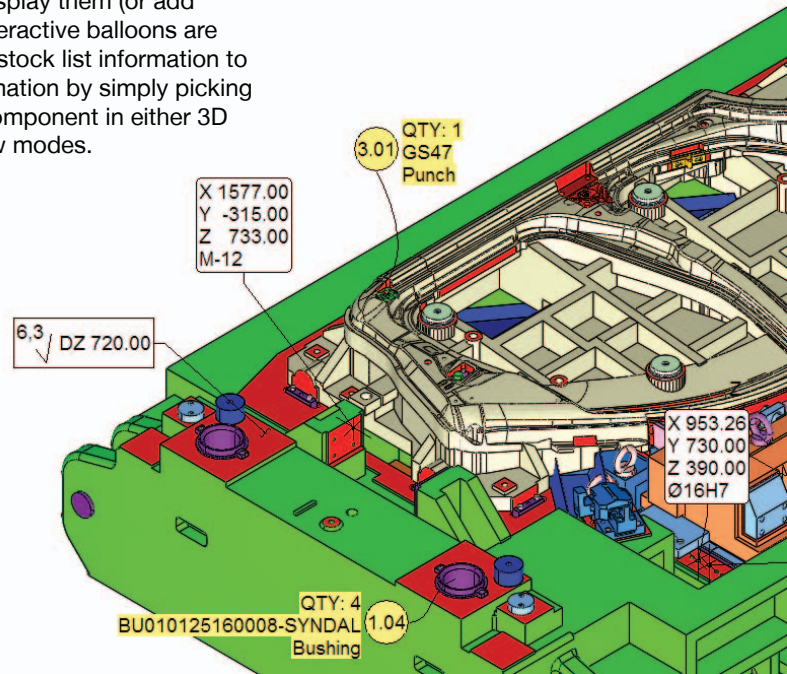
interactive balloons & dimensions

large assembly management

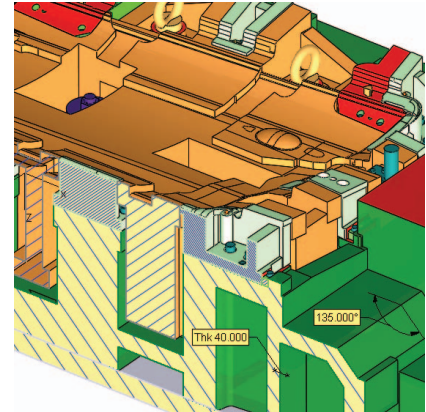
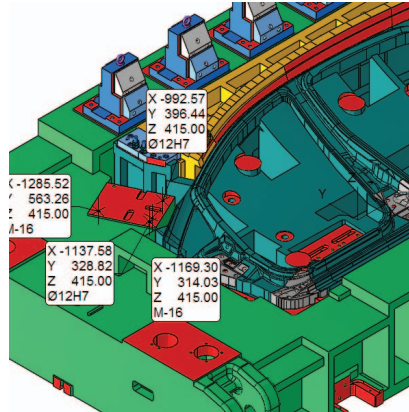
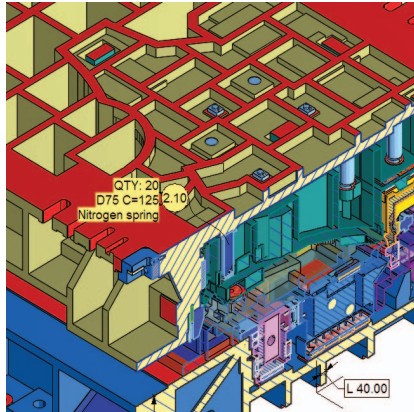
dynamic section views

urgent notes

project management & information sharing



The entire assembly structure of a die is managed in SMIRT DieShop : upper and lower die, major castings and details are arranged with the proper parent/child relations as they are in the real die.



Display control

Specific commands are available to switch from the complete die view to other sub-assembly groups and to assembly or disassembly components from the major castings. The die can be opened and slides and blank holders can be moved to the two opposite dead points of their strokes.

Axis management

Axis systems are automatically retrieved from CAD data or can be created inside SMIRT DieShop with very simple and intuitive tools. Setting the proper current axis makes it easier to analyze the functionality and the construction techniques for cam slides and complex dies, leading the operator to extract and the correct reference dimensions used for machining operations.

Powerful dimensioning

Three families of real time dimensioning tools are used to check the geometry of the die components. "Measure"

tools are used to take dimensions between two geometric features (point to point, face to edge, etc.). "Ordinate" tools are used to take co-ordinate positions referred to the current axis. The ordinate position of a drilling hole will also give technological information (tapered hole, tolerance hole, etc.) if defined in the original die design. "HeightMark" is a dimensioning tool to take specific plane position and finishing information. The finish information can be retrieved from the CAD files or can be automatically recognized by a special SMIRT algorithm.

Cross sections

Simple techniques let the user cut cross sections on the fly if required and positioned as needed. No support is required from the design department and section cutting is fast and easy (no complex CAD approach is applied). The section plane can be dynamically moved using a slider and different viewing styles can be displayed and

combined including: section only, section with split solids, hatch and filled cut face. Dimensioning, annotation and balloon tools are also available in the section view.

Annotation and information sharing

All views can be completed with floating or flag notes (the text box of a floating note is fixed to the graphics window, while for a flag note, it is linked to a point on a solid). Views with dimensions or notes can be saved and shared on the network with other colleagues or departments. Urgent notes can be defined so that every one who accesses the file will be prompted to check the urgent note itself. All the views can be exported as images to external files for documentation / e-mail messages.

The SMIRT way to get the job done

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