**FORMING EXPRESS**

**FORMING EXPRESS** (2D) is an easy-to-use process simulation system designed to analyze two-dimensional flow in metal forming processes. **FORMING EXPRESS** is capable of analyzing forging, extrusion, drawing, heading, upsetting and many other industrial metal forming applications. Two-dimensional simulation is especially efficient for processes that can be described by an axis of symmetry. Disks, hubs, shafts, flanges, fasteners and bearings are representative of parts that can be efficiently simulated using **FORMING EXPRESS**.

**FORMING EXPRESS** shares the system architecture, mesh generator and FEM engine with DEFORM-2D, the standard for process simulation technology since 1989. The Graphical User Interface (GUI) is optimized for forming processes. It is intuitive and easy to learn. The GUI combines the features of a 'wizard style' system that guides a user through data preparation with an efficient open system. The result is a production tool that designers and engineers can use to solve today's and tomorrow's forming problems.

The simulation engine is capable of analyzing complex interactions between a workpiece, dies and forming equipment. This allows a realistic and accurate modeling of the metal forming process in a production environment. The sophisticated mesh generator automatically generates an optimized mesh whenever necessary, without user interaction.

Numerous 'success stories' have been reported in both product development and die design. Scientific Forming Technologies Corporation (SFTC) is dedicated to bringing state-of-the-art process modeling technology to small to mid-sized companies. SFTC provides unparalleled training, technical support, advanced training workshops, frequent program updates and User Group meetings.
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**Computer System Requirements**
- The minimum recommended configuration is:
  - 4 GB RAM,
  - 300 GB free disk space,
  - CD writer,

**Licensing**
- FORMING EXPRESS can be licensed as a 3D & 2D, 3D or 2D system.
- Node-locked licenses support one user on one computer. Floating licenses are available to use within a local-area network.

**General Information**
- Training, support, updates and DEFORM User Group meetings are available to active users.
- Outputs include images, graphs, tabular data, animations and IGES/DXF geometry.
- On-line documentation is provided in HTML and PDF formats.
- The DEFORM Material Database includes a wide range of steel, aluminum, titanium, superalloy, copper and other material data.
- Technical support is readily available by phone, email, web meetings and the online DEFORM User Area.

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**A fastener lap is clearly shown during the final operation of a cold formed automotive part. The actual part exhibited a lap that accurately matched the simulation results. Results such as strain (shown), stress, damage and temperature can be evaluated throughout the forming process. The FLOWNET tool (green lines) allows for the prediction of grain flow within a part.**

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**The DEFORM Multiple Operation environment allows for the automatic simulation of entire process sequences. These are defined using a mix of flowchart, wizard-based and advanced menus. The hot forging process shown above was simulated, from start to finish, with a single click of the ‘Run’ button.**