CimatronE DieDesign
Your Expertise, Our Tools

Best-in-class application and toolset for practical die design
Save hours generating accurate quotes - even for complex jobs
Dramatically shorten your strip design cycle
Reduce trial iterations and mistakes
One integrated solution replaces multiple CAD and analysis tools
A Single Solution – from Quoting to Production
From quoting through design and up to die production - CimatronE DieDesign covers the full spectrum of diemaking tasks, eliminating the need for multiple CAD/CAM and analysis tools. CimatronE DieDesign solution includes:

- Data conversion from all standard formats and popular CAD software
- Complete hybrid surface and solid design
- 2D and 3D modeling
- Progressive strip design
- Finite element analysis
- Die set assembly
- Drawings and documentation
- Wire EDM
- Milling and drilling
- Support of engineering changes (ECO Management)

From the simplest to the most complex projects - Cimatron’s powerful toolset, flexible automation, and easy-to-master interface help you optimize design and minimize time to market.

Generate Accurate Quotes in Minutes
Accurate and professional quoting - key to your success - can be a long and painful process. CimatronE DieDesign features quoting tools that can save you hours of work - rapidly providing you with precision information to shorten the quoting cycle and ensure your profitability.

Intelligent Toolbox Approach
CimatronE DieDesign makes the right tools available at the right time – allowing you to choose from a comprehensive and intelligent application toolbox, and work the way you’re most comfortable. CimatronE DieDesign never limits your creativity - empowering you to implement design concepts in the fastest and most productive way.

The Ideal Mix of Automation and Manual Control
CimatronE DieDesign complements your knowledge and experience. It offers the right combination of automation and hands-on decision-making power. While many steps of the diemaking process are streamlined with user-friendly guides or are fully automated – control over all functionality always remains firmly in the experienced hands of the diemaker.

The Art of Diemaking Lives in CimatronE DieDesign
From the earliest days of metalworking, master craftsmen have passed on the art of diemaking in a rich tradition. Even in the modern era, diemaking relies as much on the skill and expertise of the diemakers as on the tools they use.

Cimatron recognizes that in today’s increasingly competitive market, diemakers need advanced CAD/CAM and analysis tools that complement and leverage their experience - not replace it. They need a system that offers the right balance between automation and full control over processes - enabling increased productivity without compromising on quality. That’s why we created CimatronE DieDesign.
IN HARMONY WITH YOUR WORKFLOW

CimatronE DieDesign works the way you work. With an intimate understanding of diemaking, CimatronE DieDesign was created to fully support a natural diemaking workflow.

CimatronE DieDesign gives you all the tools that you need, while maintaining the flexibility to leverage your experience and judgment. With CimatronE DieDesign, you’re always in full control of every stage of the process - using as much automation and manual control as appropriate for the task at hand.

Powerful and Intuitive Forming Design

Leveraging the industry’s fastest blanking capability (including vertical walls), CimatronE DieDesign’s dedicated forming and finite element tools automatically account for material stretch and deformation. Powerful CimatronE CAD allows for especially rapid creation of intermediary geometry, and integral, robust Data Import functionality facilitates work with data from other sources.

Unique 2D/3D Hybrid Strip Design and Layout

CimatronE DieDesign dramatically shortens the strip design cycle, while raising accuracy and lowering cost. The system enables rapid hybrid 2D/3D design, realistic visualization, and more efficient creation of the progressive die strip. Using a set of intelligent, dedicated tools, CimatronE DieDesign allows diemakers decide how to best nest parts on the strip - optimizing material utilization. Users can determine the optimum number of progressions, and implement the forming operation for each step.

Comprehensive Die Tool Design

CimatronE DieDesign enables design and creation of the complete die tool assembly. Leveraging data from the forming and strip design phases, DieDesign allows diemakers to choose parts from either standard or dedicated die catalogs. The system also features automatic BOM generation, even at the earliest phases of design.
THE CIMATRON DIFFERENCE

- Fully integrated solution, from die quoting, through strip design to final production
- Powerful 2D/3D hybrid modeling and best-of-breed surfacing for maximum accuracy and end-product quality
- Unique intelligent toolbox approach provides the right tools to complement your expertise
- The ideal combination of automation and hands-on control for optimal productivity
- Integral Finite Element Analysis and blank calculation for more accurate quoting, lower costs, and faster time to production
- Dedicated forming tools automatically account for material stretch and deformation, even for the most complex shapes

The CimatronE DieDesign Intelligent Toolbox

Designed with your experience and your needs in mind, CimatronE DieDesign is based on an intelligent toolbox concept. DieDesign makes the right tools available at the right time - allowing you to choose which tools to use and at what levels of automation - for maximum productivity. The CimatronE DieDesign intelligent toolbox includes:

Dedicated Forming Design tools

- Powerful geometric tools for bending, unbending, twisting and other deformation operations
- Finite Element Analysis tools - part analysis for thinning, deformation and blanking
- Hybrid tools specially adapted for dies - advanced offset, extension and blend functionality both for solid object and surfaces

Specialty Strip Design tools

- Rapid creation of punches, carriers and pilot
- Strip management tools allow simple placement and organization of intermediary shapes on the strip
- Process Analysis tools like Material Utilization, Scrap Area, Minimal Distance, and others
- Nesting and Strip Dimensioning tools to determine the number of progressions (stations), progression distance (pitch) and strip width

Powerful Die Tool Design tools

- Die Sets (plates, columns, springs etc.)
- Die Catalog parts and mechanisms
- Enables easy creation or addition of any tool component
Integral Finite Element Analysis

Recognizing that accurate Finite Element Analysis (FEA) is key to cost-effective diemaking, CimatronE DieDesign includes a built-in, industry-leading FEA solution.

Rapidly analyzing part geometry with advanced algorithms, CimatronE FEA can better predict potential failures, allowing designers to correct problems prior to trail production. CimatronE FEA accurately identifies material thinning and gathering conditions, providing more accurate part analysis and substantially impacting product formability and quality.

Fully-integrated into the diemaking workflow, CimatronE DieDesign leverages the power of FEA at all stages of die design. Simple and intuitive to use, CimatronE FEA helps you produce more accurate quotes based on real-world material considerations, and raises your time to production by lowering trial and error iterations.

The Industry's Fastest Blanking Capability

With CimatronE DieDesign, you can rapidly calculate any initial blank shape (including complex shapes with vertical walls) for die design and cost estimations in only minutes. A built-in, customizable materials database provides access to common materials for even more effective analysis.

CimatronE DieDesign blanking functionality is the basis for intelligent and accurate part nesting. In addition, partial blank and flange operations allow the creation of the intermediary shapes required for complex multi-stage forming operations.

Die Validation Tools for Flawless Design

CimatronE DieDesign offers a set of validation tools to help ensure your die design is flawless. Ongoing strip validation means that CimatronE DieDesign constantly shows you the impact of each cut operation on the remaining strip. Draft angles are constantly and automatically reviewed, to immediately detect undercuts in your design, and built-in collision detection ensures die components never interfere with one another.

World-class Customer Support

Cimatron understands the importance of outstanding customer support. That's why our dedicated support engineers - experienced diemaking professionals like you - are standing by at local customer service centers worldwide, ready to help when you need them.
About Cimatron

Cimatron is the leading provider of integrated, quoting-to-delivery CAD/CAM solutions for the tooling and manufacturing industry. Cimatron is committed to providing tool makers and NC users with comprehensive, cost-effective solutions that streamline manufacturing cycles, enable collaboration with outside vendors, and ultimately shorten product delivery time. Over 8500 customers worldwide in the automotive, consumer plastics and electronics industries employ Cimatron’s cutting-edge CAD/CAM solutions for manufacturing.

Founded in 1982, Cimatron is publicly traded on the NASDAQ exchange under the symbol CIMT. Cimatron’s subsidiaries and extensive distributor network are located in over 35 countries to serve customers worldwide with complete pre- and post-sales support.

Images courtesy of: CAM Tool & Die, Canada, Dies Industries J. Englander Ltd., Israel, Martos Utilajes, S.A., Spain, Zirtam S.C.C.L, Spain and Roygamol, S.A, Spain

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