

TECHNIQUE, INC.

ADVANCING METAL STAMPING, TUBE BENDING, AND
PROTOTYPE PRODUCTION WITH SOLIDWORKS SOLUTIONS



Technique leveraged SOLIDWORKS design, simulation, and inspection solutions to support rapid growth in its metal stamping, tube bending, and low-volume manufacturing business, as well as to establish its Big Steel Rack subsidiary, which produces sheet metal racking and storage systems.



TECHNIQUE
INC.

Challenge:

Accelerate development cycles to shorten lead-times while simultaneously improving quality.

Solution:

Implement SOLIDWORKS Standard design, SOLIDWORKS Inspection, SOLIDWORKS Simulation Professional structural analysis, and DraftSight 2D drafting solutions.

Benefits:

- Reduced lead-times by 25 to 30 percent
- Accelerated job preparation time by 30 percent
- Expanded engineering staff from one to eight
- Improved part quality and performance

Technique, Inc. is a prototype metal-stamping, tube-bending, and low-volume manufacturing company that serves customers worldwide in a variety of industries. Founded in 1991 as a prototype metal-stamping business, the company has expanded, and now handles many types of fabricated metals applications in the automotive, heavy truck, agricultural, auto racing, off-highway vehicle, recreational vehicle, household appliance, defense, aerospace, and rail car industries. Technique's unique combination of innovative tooling design, bending/stamping presses, laser-cutting machines, and other production capabilities support both prototyping and full production for low-volume runs of stampings, bent tubing, and laser-cut tubing.

The company's success stems from its ability to meet or exceed customer expectations, provide the shortest lead-times, and remain current with the latest technologies in the industry. With that philosophy, Technique decided to transition from AutoCAD® 2D tools, which the company utilized to support its MasterCAM® machining package, to a 3D design system in 2005, according to Engineering Manager Ryan McClain. "We pride ourselves on our fast lead-times and realized 3D design technology is a means for shortening lead-times even further," McClain recalls. "It's much faster and easier to design tooling around a part in 3D, especially as the complexity of the parts that we make continues to increase."

Technique chose SOLIDWORKS® Standard design software because it's easy to use, compatible with different types of design data, and works well with MasterCAM software. The company recently added SOLIDWORKS Inspection software and SOLIDWORKS Simulation Professional structural analysis software solutions to further support achievement of its efficiency and quality objectives, and DraftSight® 2D drafting software for modifying blanks on the shop floor.

"We strive to run our operation as lean and mean as possible, and we determined that SOLIDWORKS was the best 3D package to help us do that," McClain notes. "Our company is expanding—we've gone from one engineer to eight and a 30,000-square-foot building to a 126,000-square-foot facility—and SOLIDWORKS has allowed us to grow by doing more with less. That's why we keep our subscription maintenance on SOLIDWORKS up-to-date: It enables us to leverage the latest SOLIDWORKS capabilities and keeps us current with our customers."

FASTER PREP, SHORTER LEAD-TIMES

Since implementing SOLIDWORKS design and SOLIDWORKS Inspection software, Technique has realized substantial productivity gains, including a 25 to 30 percent average reduction in lead-times and a 30 percent drop in job preparation time. "We've made a commitment to our customers to deliver parts within two to three weeks of receipt of a purchase order," McClain explains. "SOLIDWORKS design software sped us up 25 to 30 percent right out of the gate. Then, when we added SOLIDWORKS Inspection software, we realized another 30 percent reduction at the front end of the process related to setting up our job packets—which contain prints, ballooning, and corresponding quality inspection sheets—digitally in SOLIDWORKS Inspection software rather than manually by hand," McClain continues. "Instead of scanning and searching dimensions on a print, we can use SOLIDWORKS Inspection to better control the inspection process, improving quality and meeting our delivery lead-time commitments."



"We added SOLIDWORKS Simulation Professional structural analysis software to determine and evaluate the load limitations—in terms of stress and deflection—of our vertical racking system designs. This is one of many examples of how SOLIDWORKS tools are helping us to grow the business and extend our range of capabilities."

— Ryan McClain, Engineering Manager

VALIDATING PERFORMANCE WITH SIMULATION

Technique added SOLIDWORKS Simulation Professional structural analysis software to support the development of sheet metal racking and storage systems for subsidiary company Big Steel Rack. These systems are designed to warehouse and organize sheet metal of various gauges and sizes, and Technique needed structural finite element analysis (FEA) tools to validate the performance of system designs.

"The vertical storage racking systems that we developed for Big Steel Rack needed to hold a lot of weight without bending or deflecting," McClain stresses. "We added SOLIDWORKS Simulation Professional structural analysis software to determine and evaluate the load limitations—in terms of stress and deflection—of our vertical racking system designs. This is one of many examples of how SOLIDWORKS tools are helping us to grow the business and extend our range of capabilities."

Focus on Technique, Inc.
VAR: DASI Solutions, Jackson, MI, USA

Headquarters: 1500 Technology Drive
Jackson, MI 49201
USA
Phone: +1 517 789 8988

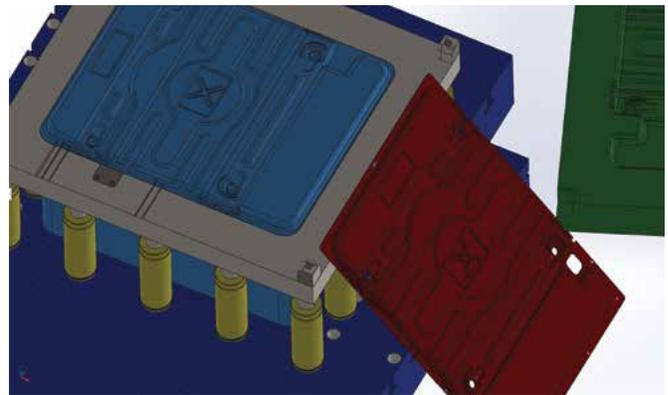
For more information
www.tirps.com
www.bigsteellrack.com



HANDLING MORE COMPLEX PARTS WITH SURFACING TOOLS

In addition to helping accelerate Technique's development processes, the move to the SOLIDWORKS design platform enables the company to design precision tooling for parts with complex geometries by leveraging advanced SOLIDWORKS surfacing capabilities. "Producing quality parts and prototypes from designs with complex geometries demands the development of precision tooling," McClain says.

"We use SOLIDWORKS surfacing tools to precisely match the offset surface of the tool with the surface of the part, which both speeds up tooling design and improves the quality of production," McClain adds. "The implementation of SOLIDWORKS has not only made us faster but has also advanced our range of capabilities and the quality of the parts that we produce."



By standardizing on the SOLIDWORKS 3D design platform, Technique not only shortened development cycles and improved quality, the company has also tapped SOLIDWORKS advanced surfacing tools to design higher-precision tooling and improve its capabilities for handling more-complex parts.

Our 3DEXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit www.3ds.com.

