

Case Study

Craftsman Tool & Mold

Craftsman Tool & Mold Makes the Leap to 3D Easy With SpaceClaim

Craftsman Tool & Mold is an Aurora, Illinois-based custom mold base manufacturer specializing in large, high-volume, and close tolerance molds for the plastics industry. Customers include plastic injection mold builders for the medical, electrical, nuclear, cosmetics, appliance, and automotive industries as well as other types of companies. Its customers span from coast to coast and range broadly in size. Craftsman Tool & Mold also provides large capacity gun drilling, grinding, punch holders, die shoes, manifold assemblies, bolster plates, and other specialty machining.

Customers rely on Craftsman because they don't want to invest in the specialized manufacturing resources Craftsman provides or dedicate the floor space to the large machines Craftsman operates in its 40,000 square foot facility. Because Craftsman focuses on mold bases and not the cavity and core, customers can work with Craftsman knowing it is a true partner and not a potential competitor. Customers also appreciate Craftsman's ability to provide all of the services they need for mold manufacturing in-house, providing single-source consistency and control. The company is nearly fifty years old, and over that time, the company has created a unique balance of skill and technology to meet the demands of its customers.

"SpaceClaim is priceless. It pays for itself within two jobs."

Discovering SpaceClaim

When his shop made the leap to using 3D solids instead of programming a path trace system for CAM, Wayne Sikorcin, president of Craftsman Tool & Mold, discovered a problem. Some of his customers were still living in a 2D world and couldn't provide the solids he needed. Further, he found that customers sent a range of incompatible file formats and Craftsman needed to be able to convert them into something his new CAM system could understand. He intended to use a 3D viewer from another company to convert files but found the software would not support all of the file types he needed. There was a pressing need for the CAM-oriented company to dip a toe in the 3D modeling waters.



Sikorcin admits that he was originally afraid of the modeling power SpaceClaim offered. Craftsman is not in the business of creating geometry, but there was no denying that SpaceClaim was the right software for his need to easily translate files and create 3D models from 2D drawings. He purchased the software with confidence that SpaceClaim was the best option available to meet his identified needs.

About Craftsman Tool & Mold

- Specializes in manufacturing large, high volume, close tolerance custom mold bases
- In business since 1965 and serving the entire US
- Single-source provider of a wide range of manufacturing services

Goals

- Prepare customer CAD files for manufacturing without relying on the customers for edits
- Translate files that are not compatible with in-house CAM
- Turn 2D drawings into 3D solids

Results

- SpaceClaim paid for itself within the first two jobs
- Craftsman edits files quickly and easily to prepare dirty geometry for manufacturing
- Craftsman increases uptime on the shop floor



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"SpaceClaim has completely changed our process. SpaceClaim actually helps us run tool change on our shop floor."

SpaceClaim Exceeds Expectations

When he made the decision to purchase SpaceClaim, Sikorcin expected he would use it three or four times a year. Once he realized how easy it was to use and how often customers needed Craftsman to create the 3D models, he found he was using SpaceClaim far more often. When customers can only provide 2D drawings, Craftsman uses SpaceClaim constantly. Before, the company used to create the models on the shop floor, and it would take twice as long.



He also discovered that the power to edit his customers' geometry comes in very handy when the designs have flaws or aren't machineable. Previously, he would have to send the designs back to the customer for editing, which created delays and additional work for his clients. Now Craftsman can make the changes in minutes and send the files back to customers for approval. In addition, for challenges where there was no expectation that SpaceClaim could help solve them, Sikorcin says Craftsman now uses SpaceClaim for geometry repair two or three times a month.

Further, he found SpaceClaim makes Craftsman operate more efficiently. Instead of running individual features, SpaceClaim helps Craftsman run tool change on the shop floor, which results in significantly more uptime for the CNC machines.

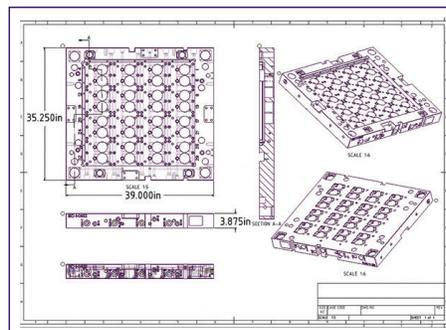
According to Sikorcin, the software pays for itself within two jobs. Having the ability to make blueprints, edit bad geometry, and convert customer files in-house makes SpaceClaim priceless.

About Craftsman Tool & Mold

Craftsman Tool & Mold has been in business since 1965. With over 40 years of experience in the mold building industry, it has created a unique balance of skill and technology to meet the demands of its customers.

Customers appreciate Craftsman Tool & Mold's ability to do their entire job in-house. This ensures complete single source control over quality and delivery. Its capabilities include:

- Saws for cutting steel to any proportion
- A rotary grinder that can take jobs up to 10 tons
- Large capacity milling machines with special tooling
- Horizontal surface grinders – maximum 42" x 12" bed
- CNC horizontal close tolerance boring mills
- Crane capacity to 15 tons
- Gun drilling capabilities to 2-inch diameter
- Modern, CNC machining centers and inspection programs to enable us to meet every tolerance, degree of complexity and uniformity
- A spacious, fully-equipped assembly area for precisely matching mold base components



About SpaceClaim

SpaceClaim, the leading provider of 3D Direct Modeling software, develops the best direct modeling solution for engineering and manufacturing. SpaceClaim's acclaimed software is easy to learn and use and is completely CAD-neutral. It enables engineers and other manufacturing professionals to rapidly create new designs or manipulate and edit existing 2D and 3D geometry, without the complexity of traditional CAD. Customers include Toyota Motor Corporation, Nokia Siemens Networks, Bosch, TE Connectivity, BorgWarner, Medtronic, Lotus Cars, Sharp, Ford Motor Company, LG Electronics, Eaton, K2 Medical Systems, Emhart Glass, GE Aviation, Carl Zeiss, General Dynamics, and the U.S. Navy. SpaceClaim is privately held and backed by Borealis Ventures, Kodiak Venture Partners, North Bridge Venture Partners, and Needham Capital.

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