

## Case Study

# Hanson Casting & Engineering

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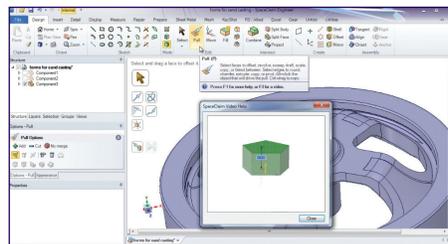
Sherwood "Bud" Hanson founded Hanson Pattern Shop in 1965. Then, as now, the area west of Chicago was saturated with foundries, but the company continued to grow and add services, including pouring zinc and aluminum alloys. By 1978, the company has settled into its permanent Sandwich, Illinois location and continued to innovate through the 1990's, adding a line of batch mixers, purchasing its first CNC five-axis router for producing patterns in wood and trimming vacuum formed parts, as well as adopting CAD technology.

In 2003, Bud Hanson's son, Scott, took responsibility for managing the company, continuing its tradition of innovation and adapting to the business environment. In the early 2000's Hanson closed the foundry portion of its business, allowing it to build relationships with the foundries that had been its competitors and expand its foundry tooling business. The company, now known as Hanson Casting & Engineering, also expanded its services with an automated vacuum form machine, a Haas CNC vertical mill and expanded its machining capabilities. At that same time, they adopted 3D CAM.

### Still Keeping Up with the Latest Advances

Just like moving from manual layout to CAD in the 1990's and adopting 3D in the 2000's, Hanson saw the potential in SpaceClaim's direct modeling before its competition. According to Scott Hanson, the company's customers are generally large companies that appreciate predictable turn around times, and SpaceClaim is an important part of his strategy to keep on a tight schedule and eliminate surprise delays. "They know what they're getting into when they give us the work."

Before using SpaceClaim, Hanson was using MasterCAM, mostly for machining, but there was some editing the company wanted to be able to do to prepare models for manufacturing that they simply couldn't get done, and any editing we were able to do took a long time. "With SpaceClaim we are able to do editing we couldn't do, and if we could do it, we can do it much faster with SpaceClaim." Once he saw the time savings, he knew it was a smart investment that would pay off almost immediately. "In the beginning, I figured I could pay for the software with the savings from the four or five jobs we had at the time."



### Drafting is a Breeze

One of the most pronounced time savings is in creating draft on a model. Hanson's customers, including consumer goods and advertising companies looking to create in-store displays, occasionally don't know that they need to add draft to a model for manufacturing. Scott Hanson found that often he couldn't add the draft very easily and sometimes he couldn't do it at all. Now, with SpaceClaim, he can pull out the surfaces and they all blend just like they did in the original model. If needed, he can also create a parting surface just as easily. Something that was a distinct pain point in his workflow is now little more than an afterthought.

### About Hanson Casting & Engineering

- Founded in 1965 as Hanson Pattern Shop
- Pours bronze, zinc and aluminum alloys, makes patterns from wood metal and plastic, and provides vacuum and foundry tooling
- Serves customers in electric utility, construction equipment, point of purchase displays and product prototyping, along with selling its own line of mixing products

### Goals

- Expand the company's editing capability from what was possible with MasterCAM
- Speed time to CAM and maintain predictable timelines for processes like adding draft, converting 2D to 3D models and creating new geometry
- Find software that is easy for non-experts to use

### Results

- Able to edit faster and perform more edits
- SpaceClaim paid for itself in time savings with the orders progress on the day it was purchased
- Accomplish all needed tasks with little to no training

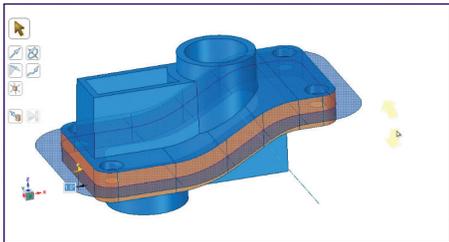


*"Being able to move geometry is much easier in SpaceClaim than in other software."*

— **Scott Hanson, Hanson Casting & Engineering**

In fact, working with SpaceClaim is so easy, he occasionally uses it to create new geometry from scratch or create his own 3D solids from 2D CAD files. "If I have a job and I don't have a drawing I'll just start my drawing completely in SpaceClaim and then get it to the point I can bring it into the machining software and finish it in there. Sometimes I get a 2D DXF and we'll quickly rotate it or extrude it and quickly get it into a 3D model. We save a lot of time that way."

Beyond the simple editing and creation of geometry, Hanson finds SpaceClaim is a helpful tool for almost anything related to geometry. He's able to open any CAD file his customers send him, and creates easy to read and helpful shop drawings for the team working on the floor.



### Bringing the Next Generation On Line

Now, the third generation, represented by Seth Hanson, is joining the company and as a beginner in modeling software he appreciates how easy it is to learn. "When he brought SpaceClaim in, he had to show it to me for about ten minutes, and then its self-explanatory. You can hover over anything and it will tell you what you need to do."

The first day the company had SpaceClaim, a machine drawing came in that had 150 holes that needed to be filled and surfaces that needed to be raised. Scott Hanson left his son to work on it after that short training session. "When I came back, he had done everything there needed to be done." Seth added, "That job took me about 40 minutes. In any other software, I would have been absolutely stuck. SpaceClaim is so much better and easier to learn, in my eyes."



### About Hanson Casting & Engineering

Sherwood (Bud) Hanson founded Hanson Pattern Shop in 1965. Now operated by his son, Scott Hanson, Hanson Casting & Engineering of Sandwich, Illinois offers a wide range of services including:

- Pattern making in wood, metal and plastic
- Foundry tooling
- CNC and manual machining
- Vacuum form tooling and
- Castings in raw or machined aluminum, bronze and zinc

Hanson's customer base includes electric utility companies, highway and construction equipment providers, companies designing point of purchase displays and those prototyping new products. The company also markets its own line of plunge mixers for a wide array of uses.

*"The simplicity and everything is amazing."*

— **Seth Hanson, Hanson Casting & Engineering**

### About SpaceClaim

SpaceClaim, the flexible and affordable 3D modeling software for engineers from ANSYS, Inc., 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.

For more information on SpaceClaim, please visit [www.spaceclaim.com](http://www.spaceclaim.com).



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