

Productive SolidCAM

Panoramic Inc. cuts lead times by 45 percent

SolidCAM gives packager the benefits of High-Speed Machining

Panoramic, Inc. began nearly 130 years ago as the Janesville Paper Box Company housed in a brick factory in the fields of southern Wisconsin, United States. Today, the company occupies a modern 100,000 square-foot facility, but its output is far from boxy. Panoramic, Inc. now specializes in custom-designed clear plastic 3D packaging – from clamshells that display razors and cell phones to domes that show off bakery confections.

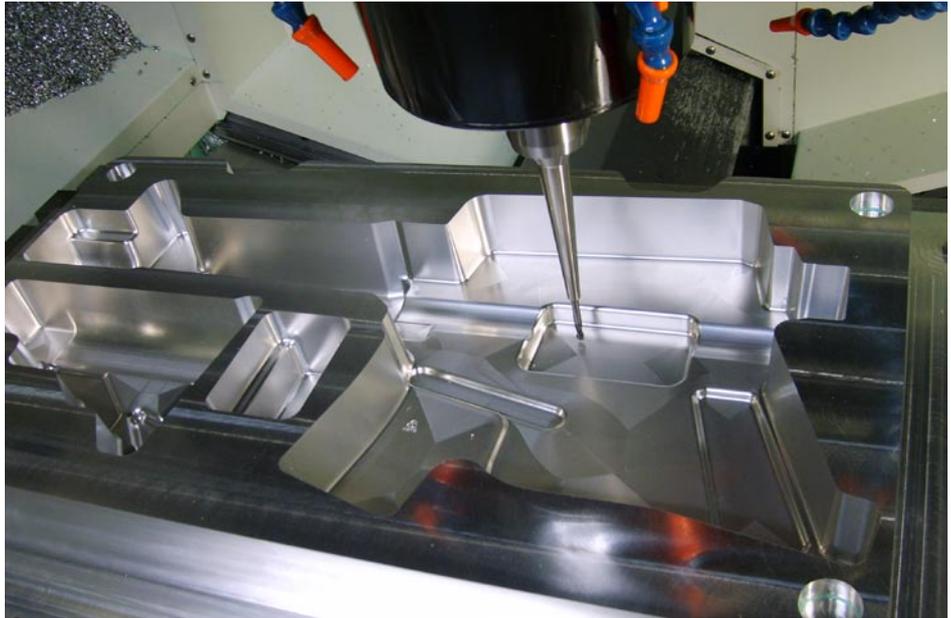
The company with roots in the past, however, is rapidly becoming a new player in the marketplace. Panoramic, Inc.'s production has grown 20-25 percent in the last few years, attracting several new clients in the food industry. A good deal of the new success, according to Tooling Supervisor Jim Appel, is due to the modernization of its production.

Besides the purchase of faster CNC mold-tooling mills, the technological boost came through the choice of the right software. By adopting SolidWorks, Panoramic could take on more sophisticated 3D forms; with SolidCAM, an integrated CAM solution in SolidWorks which creates the machining process, Panoramic cut the entire project time in half.

“High-speed machining is what we’re doing now, compared to hard milling,” says Appel, “Before SolidCAM, it took much longer. SolidCAM has reduced our lead times by 45 to 50 percent, definitely.”

The Total Package

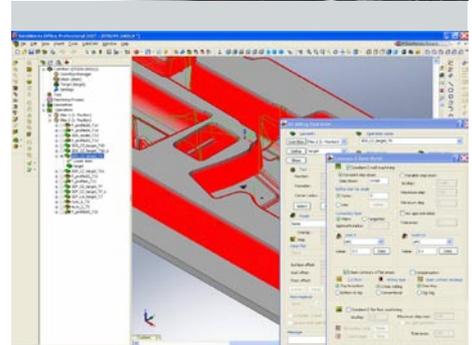
When Appel came to the Janesville facility a few years ago, custom packaging jobs were designed in AutoCAD's Mechanical Desktop. “We had to convert the designs into a wire-frame model, then save it onto an earlier



version of Mechanical Desktop so it could be recognized by the CAM package we had at the time. It got to be quite tedious and time-consuming. When customers called up and wanted certain changes, we would have to go back in there and make the edits on Mechanical Desktop, and of course we would have to take that whole drawing through the CAM program again to re-program the machines.”

Panoramic's new software system eliminates this cumbersome procedure from program to program. Because SolidCAM is seamlessly integrated within the modeling application, corrections to the 3D model also automatically update the CNC machine code. SolidCAM's associativity to the SolidWorks design model ensures that the latest version of the design model is used to generate the machining data.

“Overall, it's more of a user-friendly software than other CAM programs I've used,” says Appel, “You don't have to jump all over the place to get a simple operation done. SolidCAM also has automatic feature-hole recognition, which is great for us, since we



Panoramic Inc. provides thermoform plastic packaging for cosmetics, food, cleaning supplies, and other consumer products.

SolidCAM+SolidWorks help them to cut the entire lead time by about 50%.



have to drill thousands of air-evacuation holes in some of our parts. Just by hitting a few buttons, it drills all the holes we need." Previously, Appel worked with another CAM software especially made to work in tandem with SolidWorks called CAMWorks. "I wasn't too fond of the way CAMWorks operated. It got to a point of frustration using CAMWorks, that I started calling it CAN'TWorks," jokes Appel.

"The ease of use of SolidCAM beats CAMWorks hands down. The difference in technical support was also remarkable. With CAMWorks, anytime we had an issue, the support people would come out to the site, but then they'd leave. They'd say, 'we're not sure how this works. We'll get back to you later.' SolidCAM technical support fixes the problem right away, usually when I'm talking on the phone with them. SolidCAM is just a different kind of company."

Thermoformal Demands

Besides automatic updating, easier commands and reliable support, the advantage that accounts for the tremendous strides in production volume lies in mold preparation. Panoramic produces packaging through thermoforming. Thousand-pound spools of plastic sheeting are unrolled on thermoforming machines. The sheeting is heated and softened as it reaches a concave half-mold. A vacuum bends the plastic down and an assist plug – the other convex side of the mold – presses down to create the

plastic form. Other mechanical presses in the machine finish and trim the mold according to its final design.

While injection-mold tooling consists of the entire shape inside a block, a custom package mold in thermoforming requires up to 20 different one-sided configurations to be installed throughout the production machine. With SolidWorks and SolidCAM, Appel can easily create these 20 tooling shapes from the original solid model, instead of programming each one separately.

"We're making three complete tooling sets – actually up to 20 configurations each – every week," Appel reports. "We're only running one shift in the tool room. We do all the programming during the day, as well as the drilling operations. Towards the end of the day, we load the milling machine with up to eight parts, sometimes they are identical parts, other times they can be eight completely different parts. We then send the programs to the mill and run the parts overnight. With SolidCam, we can utilize 'lights out' machining with no worries. That's how much I trust SolidCAM. "

Other automation within SolidCAM allows Appel to store standard templates of undercuts – often-used decorative 3D patterns, ribbing, or emblems – that are engraved into the tooling through the 5-axis CNC cutter. SolidCAM automatically adjusts the pattern so it perfectly conforms to the size and shape of the package.

"That's another thing: we're getting finishes that are lot better as a result of using SolidCAM," adds Appel. "We pride ourselves in making our customer's products look as appealing as possible. Lately we've won over customers who had been using our competition for years, because they're looking for something of higher quality. And we can give them something more – and do

Panoramic Inc.

Based in Janesville, Wisconsin, Panoramic, Inc. provides thermoform plastic packaging for cosmetics, food, cleaning supplies, and other consumer products. Panoramic builds its reputation through reliability, supplying its customers with creative packaging designs, the highest quality output, on-time delivery and exceptional service. For more information on custom plastic packaging, please see www.panoramicinc.com



SolidCAM

Founded in 1984 by its Managing director Dr. Emil Somekh, SolidCAM provides manufacturing customers with a full suite of CAM software modules for 2.5D and 3D Milling, High-Speed Machining, Multi-sided Indexial 4/5 axes Milling, Simultaneous 5 axes Milling, Turning, Turn-Mill up to 5-axes and WireEDM. SolidCAM has the Certified Gold-product status from SolidWorks and provides seamless, single-window integration and full associativity to the SolidWorks design model including parts, assemblies and configurations. SolidCAM has today more than 12,000 seats installed. The company has been on a very rapid growth path since it implemented the SolidWorks integration strategy with annual growth rates over 30%. SolidCAM is sold by a worldwide reseller network in 46 countries.

www.solidcam.com

