



Success Story

CAM software maximizes 5-axis machining

As the global leader in food cutting technology, Urschel Laboratories, Inc. is a vibrant Indiana manufacturing company that has been growing steadily since its founding in 1910. The company’s manufacturing floor...



About URSCHEL

Since 1910, Urschel has been designing and manufacturing precision industrial cutting machinery. From the invention of the Gooseberry Snipper to the development of the Comitrol®, TranSlicer®, and DiversaCut® series of machines, the focus has always been on finding innovative and efficient ways to improve customer productivity. Urschel has developed a worldwide reputation for excellence by working in partnership with customers over the years to meet the ever-changing challenges in the marketplace. Increases in productivity, new products, energy-saving machinery, and cleaner, more precise cuts, are just a few ways Urschel has – and continues – to rise to the demands of this dynamic industry.

> www.urschel.com

... takes up more than 70% of its 385,000 square foot facility in Chesterton, Indiana where over 400 employees produce a comprehensive line of food processing machines that help feed the United States and the world.

The company has come a long way from when its founder William E. Urschel first introduced Michigan canneries to the gooseberry snipper. Urschel, a young man of 30, ultimately launched his company to manufacture a machine to handle the removal of a stem and thick bud appendage from the berry. This effort was followed by a line of innovative machines that are now used by virtually all food manufacturing companies worldwide to slice, dice, trim, grate and process food stored in pantries and refrigerator shelves.

Streamline & Improve

One of the continuing missions at Urschel is exploring new ways to streamline and improve the existing manufacturing process. Bill Monroe, Senior Manufacturing Engineer at Urschel Laboratories researched 5-axis machining, and learned that by using this technology the company would be able to build better parts for the Urschel product line. “I felt we could make parts faster and with more accuracy, including new parts

with complex geometry that we could not build with existing equipment and CAM software,” said Monroe.

Mr. Monroe first wanted to experiment with 5-axis machining. At the outset, there was absolutely no idea of what would be able to be created using this method, but he knew that possibilities would materialize once he got his hands on a fast and accurate 5-axis machining center and the CAM Software to control it.

Urschel Laboratories in Chesterton, Indiana produces a comprehensive line of food processing machines.



“We wanted a CAM software solution that was directly integrated into SOLIDWORKS, and for over 10 years *hyperMILL*® has been a SOLIDWORKS certified Gold CAM product. With the help of *hyperMILL*® and the OPEN MIND staff, we were able to quickly move to production.”

Bill Monroe,
Sr. Manufacturing Engineer



To further R&D efforts, the company purchased a high-speed DMG Mori DMU 50 milling machine. The CAM software that they were using wasn't up to the task, so the search was on for the right CAM solution for the job and this quickly narrowed down the field.

All 3D design work at Urschel is done using SOLIDWORKS, and Monroe wanted a CAM software solution that was directly integrated into SOLIDWORKS. *hyperMILL*® CAM software definitely met this critical need. For over 10 years, *hyperMILL*® has been a SOLIDWORKS certified Gold CAM product, providing in-window seamless integration of CAD and CAM, and with all *hyperMILL*® strategies enabled.

SOLIDWORKS integration was just one consideration. Monroe was anxious to start the 5-axis experiments so he could get up to speed fast. The company needed quality training, ongoing support and help with 5-axis machining strategies to meet their current and future needs. OPEN MIND was also able to help.

Investing In The Future

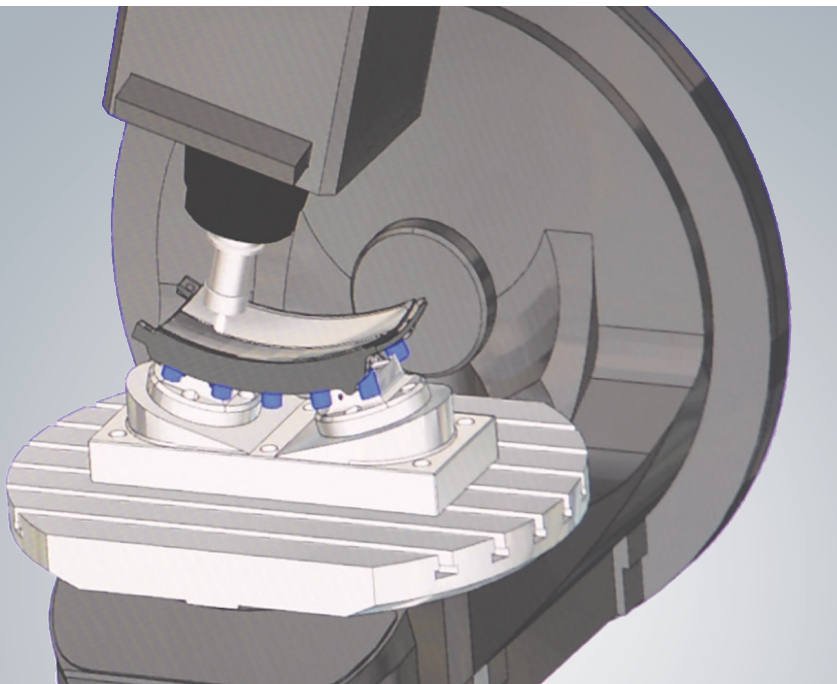
To sustain their growth into the future, Urschel is now transitioning their prototyping, tooling and production processes, and upgrading to utilize high-speed 5-axis milling machines.

Urschel uses 5-axis machining to create complex geometries quickly and precisely in one set-up without having to reposition the part for each milling operation. 5-axis machining saves Urschel time and money, eliminates realignment issues, and allows them to produce parts that cannot be produced on their 3- and 4-axis machines.

The software that drives these machines is critical, and Urschel chose OPEN MIND's *hyperMILL*® CAM software to help them move into the future. “*hyperMILL*® has some strategies that other CAM software doesn't have. In fact, we needed to get up to speed on some of these strategies and the OPEN MIND technical support team was great to work with,” claimed Monroe.

Monroe continued, “The training experience was great. Instead of going out to classes, the OPEN MIND staff came here and then we'd go out to our lab and work together with our parts and on our machine. Our team couldn't be happier.” Monroe also needed an ongoing, responsive working relationship with a CAM company that would be there with expertise and advice, to guide and work with him to fulfill Urschel's needs over the long term.

While making this buying decision Monroe checked off all these factors and firmly decided on OPEN MIND's *hyperMILL*® CAM so-



Urschel chose
OPEN MIND's
hyperMILL® CAM
software for its
sophisticated
5-axis
programming.



OPEN MIND's *hyperMILL*® 5-axis programming is streamlining manufacturing of Urschel Laboratories' food processing machines used throughout the world

lution. In just a few short months, based on the cost and time saving benefits of 5-axis machining, Monroe was able to go beyond what he originally thought was possible. "We bought a second machine along with another seat of *hyperMILL*® and are now loading it up with production jobs," said Monroe.

Summed Monroe, "Working with OPEN MIND's *hyperMILL*® team has been a positive experience all the way through. We chose *hyperMILL*® because we were already familiar with its interface, and that was critical. Being able to have a package that was big enough and comprehensive enough to grow with us over the long term was also extremely important. We didn't want a pared down package just because it worked in SOLIDWORKS.

We needed and have found, a solution that is comprehensive and that we can grow with. Having really good support is key.

We wouldn't have been able to move to production as quickly as we did without the OPEN MIND staff teaching us along the way. Also, they didn't try to oversell us, which was a huge deal. Our relationship with OPEN MIND will continue to grow, for a very long time."

With help from the OPEN MIND team and *hyperMILL*® CAM software, and by adopting the latest manufacturing techniques and machines, Urschel Laboratories is now poised to continue its growth into the future. ■

About OPEN MIND Technologies AG

OPEN MIND is one of the world's most sought-after developers of powerful CAM solutions for machine and controller-independent programming.

OPEN MIND develops optimized CAM solutions that include a high number of innovative features not available elsewhere to deliver significantly higher performance in both programming and machining. Strategies such as 2.5D, 3D as well as 5-axis milling/mill turning, and machining operations like HSC and HPC are efficiently built into the *hyperMILL*® CAM system. *hyperMILL*® provides the maximum possible benefits to customers thanks to its full compatibility with all current CAD solutions and extensive programming automation.

OPEN MIND strives to be the best and most innovative CAD/CAM manufacturer in the world, helping it become one of the top five in the CAM industry according to the NC Market Analysis Report 2017 compiled by CIMdata. The CAD/CAM solutions of OPEN MIND fulfil the highest demands in the automotive, tool and mold manufacturing, production machining, medical, job shops, energy and aerospace industries. OPEN MIND is represented in all key markets in Asia, Europe and America, and is a Mensch und Maschine company.



www.openmind-tech.com