

From Speed Shop to Leading Manufacturer, Distributor and Retailer of Automotive and Racing Products

Speedway Motors Boosts Growth as Automotive Parts Manufacturer with HCL CAMWorks Multi-Axis Milling Solutions



Speedway Motors has been providing high-quality automotive parts and racing products since 1952. The company began as a “brick and mortar” performance parts retailer in Lincoln, Nebraska, selling aftermarket auto parts and custom car parts to area enthusiasts. Decades later, Speedway Motors is one of the leading automotive parts manufacturers, distributors, and retailers in the world; running multiple retail shopping locations and distribution centers. The company headquarters, main distribution center, and retail store is located in Lincoln, Nebraska, with a second distribution center and retail store in Phoenix, Arizona, and a third distribution center in Kearneysville, West Virginia. Customers can pick up the latest race car parts and aftermarket accessories for classic muscle cars, hot rods, classic pickup trucks, and more at one of their two retail locations or can order online to have the parts delivered quickly and efficiently, directly to their door.

Today, Speedway Motors makes online shopping for high-quality automotive and racing parts a straightforward, rewarding experience. Unlike many other automotive parts websites, Speedway Motors provides access to a knowledgeable technical support staff to help ensure that customers order the parts that they need. With more than 250,000 parts, all three distribution centers are fully stocked and ready for shipment. Speedway Motors’ staff of technical experts is knowledgeable about automotive parts for racing, muscle cars, hot rods and trucks, and they help customers with technical and fitment questions as well.

Until 2009, Speedway Motors utilized manual approaches to program the two CNC machines in its shop: either by manually writing out the G Code or setting up runs at the Haas control, according to CNC Department Supervisor Lucas Prucha. “Our machine shop is like any other machine shop except for the fact that we have more control over our parts engineering,” explains Prucha, who joined the company in 2009 as a general laborer and has risen through the organization to now manage its CNC Department. “HCL CAMWorks® and SOLIDWORKS® were implemented the year that I joined the company to improve productivity and help us grow,” says Prucha.



Speedway Motors manufactures, distributes and sells over 250,000 high-quality automotive parts and racing products.

Speedway Motors implemented HCL CAMWorks multi-axis milling and HCL CAMWorks VoluMill™ high-speed machining software to support 2.5-axis, 3-axis, 4-axis, and 5-axis machining, and to take advantage of the solution's seamless integration with SOLIDWORKS 3D modeling software, to enable the company to accelerate and increase production, save time, efficiently develop new products, boost productivity, and support growth.



Lucas Prucha
CNC Department Supervisor

Expanding Capacity and Increasing Production

"CAMWorks has been a big advantage for us," Prucha stresses. "The software is extremely intuitive and easy to learn, with lots of educational resources, which makes it easy to get new people trained."

Since implementing HCL CAMWorks solutions in 2009, Speedway Motors has expanded its machining capacity to support higher production volumes and business growth. The company now runs 19 CNC machines, including two DMG Mori vertical mills, two DMG Mori 5-axis mills, three DMG Mori horizontal mills, eight DMG Mori mill/turn lathes, and four Citizen Swiss turning lathes. "We've grown substantially since the CAMWorks implementation, increasing CNC machine shop personnel from two to 30 employees and adding a second shift," Prucha notes.

"Our main objective is to keep production flowing to fill our warehouse shelves," Prucha adds. "We've experienced a 300-percent increase in production volume since 2016, and CAMWorks is a big part of that."

For example, we leverage our extensive knowledge with the CAMWorks Technology Database (TechDB™), which is a huge timesaver because we don't have to reprogram every time that we run a part and can just pull up the tooling path from the TechDB."

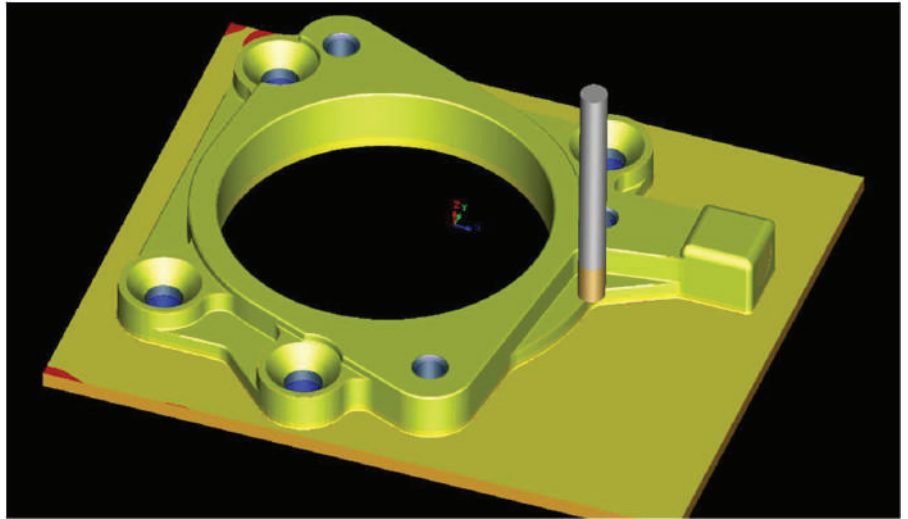
"We've experienced a **300%** increase in production volume"



Since implementing HCL CAMWorks, Speedway Motors has increased production by 300%

Quickly Developing New Products

In addition to machining existing automotive parts, Speedway Motors develops its own products to meet automotive part and racing product demand through custom part development. "The combination and integration of SOLIDWORKS 3D modeling software and CAMWorks machining software is a huge benefit when designing new parts, especially during the prototyping phase," Prucha points out. "When we set out to machine new parts that we've never done before, the bi-directional associativity between CAMWorks and SOLIDWORKS saves time and a lot of wasted effort, especially when dealing with tight tolerances and clearances."



CAMWorks is bi-directionally associative with SOLIDWORKS which saves time and effort when design changes need to be made.

"CAMWorks generates toolpaths from the features on the SOLIDWORKS model," Prucha explains. "When prototyping new products, we typically need to complete a few prototype iterations before reaching the final design. This requires making changes and tweaks to the model, which are automatically updated in the CAMWorks toolpaths, which saves both time and effort. We also use the collision detection capabilities of SOLIDWORKS to ensure no collisions or interferences between the tooling and fixtures."

Reducing Cycle Times, Extending Tool Life

Another productivity-enhancing feature of CAMWorks that benefits Speedway Motors' machining operations is the HCL CAMWorks VoluMill high-speed machining solution, which helps to reduce milling cycle times and extend tool life. "The CAMWorks VoluMill high-speed machining module is making quite a difference in increasing efficiency and decreasing tool costs," Prucha points out.

THE CLIENT

Company: Speedway Motors, Inc.
Headquarters: Lincoln, Nebraska, USA
Industry: Automotive aftermarket parts and racing products

THE CHALLENGE

Continue to grow automotive parts and racing product manufacturing business by leveraging technology automation to advance and improve the productivity of its machine shop, boosting production to maintain parts inventory.

THE SOLUTION

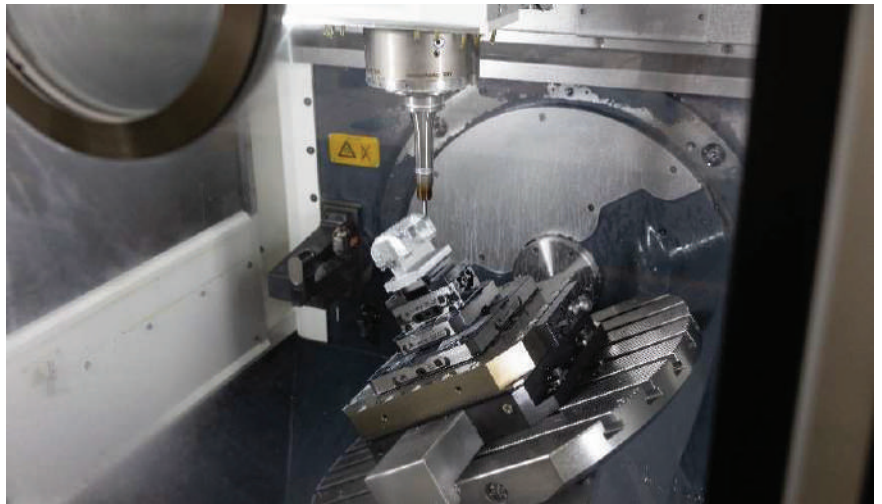
Implement HCL CAMWorks multi-axis milling and HCL CAMWorks VoluMill high-speed machining software to support 2.5-axis, 3-axis, 4-axis, and 5-axis machining, and to take advantage of the solution's seamless integration with SOLIDWORKS 3D modeling software, to enable the company to accelerate/increase production, save time, develop new products, boost productivity, and support growth.

THE BENEFITS

- Grew machining operations from two (2) CNC machines to nineteen (19) CNC machines.
- Boosted production volume by 300 percent since 2016.
- Increased workforce from two (2) employees to thirty (30) employees and added a second shift.
- Expanded product offering to more than 250,000 automotive parts, added two (2) more distribution centers.

"VoluMill high-speed machining drastically cuts down the length of cycle times, which enables us to mill more parts in less time," Prucha says. "It also extends the life of a tool, whether a tool is made of aluminum or steel."

In short, CAMWorks solutions are helping us to boost productivity and reduce costs in our manufacturing operations, both of which are helping us support growth and continue to serve valued customers all over the world."



CAMWorks VoluMill has reduced the cycle time at Speedway Motors for 2.5 axis and 3 axis milling roughing operations.

About CAMWorks

2026 © HCLSoftware. All rights reserved. HCL CAMWorks is the next generation best-in-class CNC programming solution that enables users to program smarter and machine faster. HCL CAMWorks provides advanced CAD/CAM technologies including Full Integration with SOLIDWORKS and Solid Edge, Automatic Feature Recognition, Tolerance Based Machining, ShopFloor Tools, and TechDB to capture and reuse your best programming practices.

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About HCLSoftware

HCLSoftware is a global leader in software innovation, dedicated to powering the Digital+ Economy. We develop, market, sell, and support transformative solutions across business and industry, intelligent operations, total experience, data and analytics, and cybersecurity. Built on a rich heritage of pioneering spirit and unwavering commitment to customer success, we deliver best-in-class software products that empower organizations to achieve their goals. Our core values of integrity, inclusion, value creation, people centricity, and social responsibility guide everything we do. HCLSoftware serves more than 20,000 organizations, including a majority of the Fortune 100 and almost half of the Fortune 500. **Learn more about how HCLSoftware can help you achieve your goals at <https://www.hcl-software.com>.**