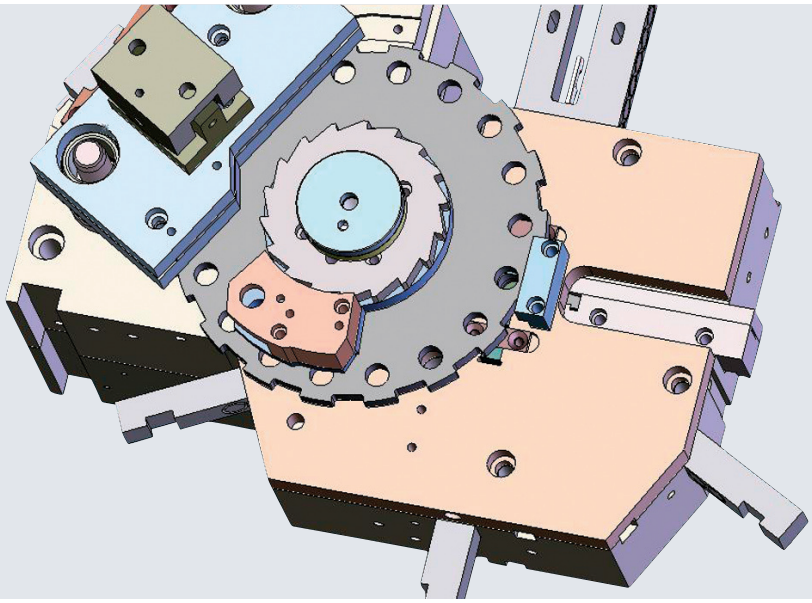
OILES America Corporation

IMPROVING AUTOMOTIVE COMPONENT DEVELOPMENT WITH SOLIDWORKS PREMIUM



Using SolidWorks software, Oiles America Corporation has improved the quality of tooling assemblies, extended tooling lifecycles, achieved greater accuracy, and increased throughput.

- Accelerated mold optimization process
- Improved tooling quality and lifecycles
- Achieved greater accuracy and increased throughput
- Realized efficiencies that support expanding product line

OILES America Corporation is a leading supplier of maintenance-free bearings and other products to the automotive and industrial equipment industries. Unlike traditional bearings, which require lubrication, the company's bearing products are completely "oil-less" and lubrication-free. After years of using metal alloys to manufacture its products, the company recently began using more injection-molded materials that are less expensive, more lightweight, and better suited to their expanding product needs. OILES America receives production molds from its parent company in Japan, which the American operation modifies for its North American production needs. In 2004, OILES America upgraded its 2D CAD tools to Autodesk Inventor® 3D CAD software in order to better support its mold and assembly modification needs. However, the company quickly became dissatisfied with Inventor's capabilities, according to Jeff Read, production engineer.

"We experienced a lot of problems working with assemblies in Inventor, and were also disappointed with the software's overall capabilities, especially for mold development," Read explains. "Because of the complexities involved in working with legacy data in Inventor, we soon came to realize that we needed a CAD system that was both easier to use and more powerful."

After evaluating several 3D CAD systems, OILES America selected SolidWorks® Premium software. The company chose SolidWorks software because of its ease of use; integration with important add-on applications, including SolidWorks product data management (PDM) and SolidWorks Simulation design analysis software; compatibility with varying data formats; ability to import and reuse legacy data; and assembly design and dedicated mold development capabilities.

"SolidWorks software is easier to utilize and integrate with production processes," says Read. "The software provides more options for importing and exporting various data formats, which makes it easier to reuse legacy data and work with customers and vendors who use a variety of different CAD systems."

SolidWorks

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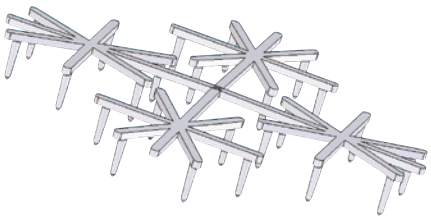

Oiles America Corporation employs SolidWorks dedicated mold design and analysis tools to accelerate mold optimization in the production of automotive parts.

Accelerated mold optimization

Before installing SolidWorks software, OILES America's engineers had to test, prototype, and modify multiple times before releasing the tooling for production. This trial-and-error validation and optimization process added more time and expenses to OILES America's operations. By implementing SolidWorks, the company employs the software's dedicated mold design and analysis tools to accelerate mold optimization, while reducing costs.

"We build 3D models of components in SolidWorks to check tolerancing on parts," Read explains. "We also plan on using SolidWorks Simulation design analysis to gain a better understanding of stress-and-strain characteristics. These capabilities enable us to optimize molds before we cut metal, which saves time and money."

Greater accuracy, increased throughput

By implementing SolidWorks software, OILES America more efficiently optimizes its production molds, which results in greater accuracy, increased throughput, and a better estimate of the lifecycle of a tool. Before installing SolidWorks, for example, the company's bills of materials (BOMs) were inaccurate 35 percent of the time. But with SolidWorks software, accuracy has improved by 96 percent. The company also integrated SolidWorks model mass properties with an automated quoting formula in Microsoft® Excel to increase quoting efficiency by 35 percent.

"With SolidWorks, we gain a better understanding of the characteristics of the mold and the pressures involved, which allows us to choose the best tonnage of machine for extending tool life. Choosing the optimal tonnage can extend tooling with a lifecycle of 500,000 pieces over five years to one million pieces over 10 years," Read notes. "By helping us to optimize mold performance and estimate tooling lifecycles, SolidWorks enables us to decrease cycle times and produce more parts per hour than ever before."

Efficiencies support expanding product line

Since moving to SolidWorks software, OILES America has realized greater efficiencies, which in turn has increased the company's capacity for supporting its parent company's expanding product line. The company's focus on injection molding goes beyond replacing metal alloy bearings and parts – such as ball joints, rack-and-pinion steering components, and strut bearings – with lighter, more cost-effective, plastic versions.

"Because SolidWorks gives us greater capabilities, particularly in mold development, we are better positioned to assist our parent company in developing new products to support future growth," adds Read. "If your company wants to become a world leader, SolidWorks is the software to utilize."

SolidWorks

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