

Sportech, Inc.

LEAN MANUFACTURING WITH ROBUST INNOVATION



Symmetry Solutions helps Sportech make big leaps in efficiency



Sportech is an innovation-driven plastics thermoformer specializing in exciting products for the powersports industry. Sportech started in 1994 as a small, home-based family business selling aftermarket molded plastic snowmobile parts. Through the years the company has grown and expanded into other areas, but the focus remains on innovation.

Today, with over 100 employees and a 95,000 square foot state-of-the-art manufacturing facility in Elk River, Minnesota, Sportech is recognized as one of the premier plastic thermoformers in the powersports industry. Sportech's customer list includes some of the leading manufacturers in the powersports industry.

How does a Minnesota manufacturer win a spot multiple times as one of the state's top 50 growth companies? How does it get recognized nationwide for innovative product design? For the Minneapolis-based Sportech, Inc., the key is to support every process with the best tools available.

Windshields are one of the many products Sportech offers and an essential design element for today's power-sport vehicles. The windshield must be thick and durable enough to handle rough, off-road conditions but with all the curves, colors, and finishes that fits within a sports aesthetic. "Our windshield designs have a lot of compound surfaces and require some complex surface modeling," says Jesse Hahne, Engineering Manager at Sportech.

Sportech supports its design process with SolidWorks 3D Mechanical CAD and Simulation software for finite element analysis (FEA). Sportech also utilizes the MicroScribe G2L digitizing arm that scans surfaces for needed geometry, which is captured directly within the SolidWorks software.

With a strategy in place for lean manufacturing, the production side of Sportech is equally advanced. Their integrated systems allow the shop to design, develop, and manufacture their tooling in-house which gives them a faster speed to market. Recent improvements in machining have given Sportech the ability to go from design-to-mold-plastic in as little as three days.

Even though a new windshield molding can be created in a few days, the design review process it takes to get there might take weeks. "Design review meetings involved everybody gathering at one facility," explains Hahne. "We'd have to bring a laptop[to our customer's facility] or they would have to come over here. We'd get feedback, make the changes, and schedule another meeting. Now we've pretty much eliminated that."

Symmetry Solutions, the local SolidWorks reseller, introduced Sportech to eDrawings, a lightweight file exchange system for 3D models that enables design reviews to take place via e-mail. Since then, the wait times for design feedback have been dramatically shortened. "Communicating digitally has cut down the time to bring an OEM product to market in half," estimates Hahne, "by just cutting out the meetings."



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Empowering GREAT Products

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Sportech Inc. Design & Engineering awards

- Two-time recipient of Minnesota Business Journal’s “Growth 50” Award, recognizing the top 50 fastest growing privately-held companies in Minnesota.
- Multiple recipient of Ehlert Powersports Business Magazine’s “Nifty 50” Award, recognizing innovation in product design.
- Named one of the 100 most influential companies in the powersports industry by Ehlert Powersports Business Magazine.

Continuous Process Improvement

“Our experience with Symmetry Solutions has been 100 percent positive,” adds Hahne. “We couldn’t ask anything more from a SolidWorks provider. Their tech support is awesome. When there is an issue we just call them and they are on it, and they always follow up to see if we’re still having issues.”

Hundreds of engineering firms throughout the upper Midwest know Symmetry Solutions as the contact to call when they hit a snag in SolidWorks. But the experts at Symmetry Solutions provide more than local and personalized technical support. Symmetry Solutions’ customers can also draw on a wealth of industry knowledge on how to create better products faster.

“Symmetry Solutions keeps you in the loop with what’s new in product development technology,” he says. Hahne’s four-person team of designers routinely keep on top of modeling skills by attending classes at the Symmetry Solutions’ state-of-the-art training facility for the Minneapolis area.

“They have instructors there that are just unbelievable. We receive clear instruction at just the right pace,” says Hahne. “The reps at Symmetry Solutions are also always suggesting new methods to help improve our efficiency and effectiveness in our design process,” says Hahne.

Besides SolidWorks products, Symmetry Solutions is a certified reseller for Z Corporation’s 3D printing technology. Like eDrawings, the addition of 3D printers to the Sportech engineering office has helped the engineers communicate a clearer picture of its specialty parts to OEM clients who scrutinize the finer details. Symmetry Solutions staff helped Sportech set up the hardware and trained its employees on site how to use the new tool.

“The Z Corporation 3D printer has been a really nice addition to our design department. It is a perfect fit for what we do. Now when we get the designs to a point when everybody’s happy, we can give the client a physical prototype in addition to the CAD data. Before we launch the tooling, we print out the parts and either ship them or hand them to the customer when we meet,” explains Hahne.

“It’s an amazing technology. Z Corporation produces 3D parts in full color. Our new rapid prototyping capabilities have also benefited the sales end of our company. Being able to walk in to the customer with the three dimensional product in hand along with the quote lets them really see what we’re able to do in short order. This is another area where Symmetry Solutions has really helped us out.”

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