

THE OUTDOOR GROUP, LLC

DEVELOPING INNOVATIVE, HIGH-TECH ARCHERY PRODUCTS
WITH SOLIDWORKS SOLUTIONS



Using SOLIDWORKS design and simulation solutions, The Outdoor Group produces the most elite bows and archery equipment in the industry, while streamlining its development processes.

Challenge:

Integrate and advance the product development efforts of merged subsidiaries to produce the most high-tech and prestigious bows and archery equipment in the industry.

Solution:

Implement SOLIDWORKS Professional and SOLIDWORKS Premium design software, and SOLIDWORKS Simulation Professional analysis software solutions.

Results:

- Reduced design cycles by 50 percent
- Cut manufacturing setup time by 50 percent
- Realized annual revenue growth of more than 30 percent
- Improved product quality and reliability

The Outdoor Group, LLC is dedicated to developing the world's most high-tech and prestigious compound bows and archery equipment. As the parent company of Elite Archery, Perfect Form Manufacturing, Scott Releases, Custom Bow Equipment, Duel Game Calls, Solid Broadheads, and Winner's Choice Custom Bowstrings, the privately held company has assembled the top brands in archery to develop the industry's most "Elite" bows.

Based in Henrietta, New York, The Outdoor Group focuses on the use of advanced design, engineering, and manufacturing technologies to produce bows with the highest levels of shootability. By combining proven technology and components made by recognized leaders in their field with modern design and manufacturing techniques, the company strives to make its Elite™ bows worthy of their name.

According to Lead Engineer Mike Derus, the archery equipment manufacturer realized from the start that it would need to leverage 3D design, engineering, and manufacturing solutions to achieve its ambitious product development goals. "In launching a new product development organization that is tasked with integrating the product designs of our subsidiaries into a unified effort, we needed a robust yet easy-to-use development platform," Derus explains. "Designing rapidly, validating quickly, and manufacturing efficiently were critical requirements. After evaluating available packages, we chose SOLIDWORKS® solutions."

The Outdoor Group selected SOLIDWORKS Professional and SOLIDWORKS Premium design software, as well as SOLIDWORKS Simulation Professional analysis software, because the solutions are easy to use, provide an efficient approach to design analysis, and integrate well with MasterCAM® machining software.

"Many of the products that we work with were originally developed using hand drawings," notes Design Engineer Dan Kelly. "SOLIDWORKS gives us the tools that we need to document and improve design concepts, validate and prototype design performance, and manufacture and assemble quality products."

"Our challenge was not only to take great products and make them better, but also to streamline design and manufacturing to introduce innovative, high-quality products efficiently and cost-effectively," Derus stresses. "We believe that SOLIDWORKS provides the best set of integrated tools for overcoming that challenge."

COMPRESSING DEVELOPMENT AND MANUFACTURING FUELS GROWTH

Since implementing SOLIDWORKS solutions in 2010, The Outdoor Group has introduced Elite bow models that have quickly set a new standard for quality, while reducing design cycles by as much as 50 percent. The company's product development and marketing efforts have resulted in annual revenue growth of more than 30 percent.

"Our success stems from the ability to take the disparate pieces produced by our subsidiaries, then optimize them to manufacture premium products," Derus says. "SOLIDWORKS has allowed us to reduce cycle times significantly, which saves time and money, while simultaneously improving the quality and shootability of our products."

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— Mike Derus, Lead Engineer

DESIGN FOR MANUFACTURABILITY

Utilizing SOLIDWORKS solutions and the MasterCAM machining package, The Outdoor Group has also realized productivity gains in manufacturing. By using SOLIDWORKS design-for-manufacturability tools, the company's engineers can optimize designs. With the SOLIDWORKS add-in for MasterCAM machining software, the design-to-manufacturing transition is so tightly integrated that The Outdoor Group has cut manufacturing setup time by 50 percent.

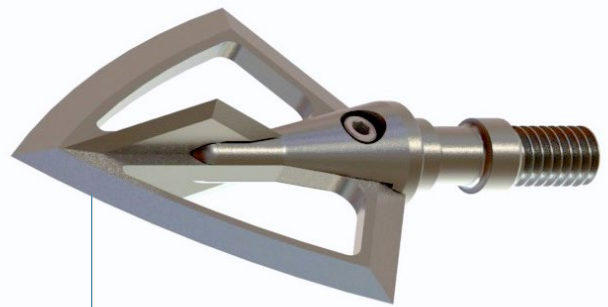
"The combination of SOLIDWORKS and MasterCAM enables us to take advantage of a totally automated manufacturing environment," Kelly explains. "We've reduced our manufacturing setup times by 50 percent and improved the quality of our machined parts, both in terms of industrial design and ergonomics."

BACKING UP A LIFETIME WARRANTY

The Outdoor Group backs up the quality of its products with the Elite Promise, a limited, fully transferable, lifetime warranty. One of the reasons that the company can offer such a strong endorsement of product quality is the added design confidence provided by SOLIDWORKS Simulation Professional analysis software. The archery equipment manufacturer uses the solution to conduct structural, dynamics, and fatigue analyses of its bow designs.

“With SOLIDWORKS Simulation Professional software we can validate and even optimize design performance,” Derus says. “By using simulation to prototype and refine our bow designs, we simply make a better bow. Elite bows are designed for reliability, which is why we can offer our no-questions-asked lifetime warranty. With the SOLIDWORKS integrated design and analysis environment, we are so confident in the performance and fit and function of our products that we promise to replace them if they don’t perform as intended.

“SOLIDWORKS solutions have helped us to take our product development operation to the next level, to the enjoyment of bow-hunting and target-shooting enthusiasts everywhere,” Derus adds.



In addition to design and performance improvements, The Outdoor Group has also realized productivity gains in manufacturing, enabling the company to offer a lifetime warranty on its products.

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