

# REMINGTON PRODUCTS COMPANY

Beating back an onslaught of overseas competition with SolidWorks



*The productivity gains provided by SolidWorks software enabled Remington Products to continue to succeed in the highly competitive, global footwear industry.*

How does a U.S.-based fabricator of foam cushioning products for the footwear industry succeed amid an onslaught of low-cost global competition? Remington Products Company overcame the challenges related to the flight of manufacturing to overseas suppliers by becoming more efficient, and expanding beyond its traditional OEM business as a supplier of footwear products.

The course the company ran to greater productivity and business expansion required a new product development solution. Remington Products needed to be faster, more innovative, and more responsive to develop successful lines of OEM and after-market products—in markets as new and varied as medical, sporting goods, military, industrial, apparel, packaging, automotive, electronic, and consumer products.

Remington's engineering group sought out a 3D product development platform that would help them accelerate time-to-market, control costs, and strengthen customer service. "Our business consists of working with customers to create inserts, cushions, and protective products using proprietary materials," explains Engineering Manager Mickey Smicklevich. "We need to create prototypes quickly and use them to drive our mold-making operations, which range from compression molds for foam, to molds for expanded urethane."

By replacing the ProCAM software—that the company had used for tooling development—with the right 3D CAD system, Remington Products management hoped to improve productivity and support growth. "To succeed, we need to be better, faster, and more responsive than the competition," Smicklevich stresses. "Using the right 3D system, we believed we would have the flexibility, agility, and efficiency to consistently meet our objectives."

Remington Products chose SolidWorks® Professional software because it is easy to use and makes product development more efficient. Remington's engineers also believed that SolidWorks would help them speed time-to-market and control costs by providing the right mix of design and mold development tools.

## Challenge:

Improve productivity and responsiveness to succeed amid an onslaught of global competition.

## Solution:

Implement the SolidWorks 3D product development platform to accelerate time-to-market and control costs.

## Results:

- Shortened design cycles by 25 percent
- Improved time-to-market by 20 to 25 percent
- Reduced scrap/rework costs by 15 to 20 percent
- Expanded beyond traditional OEM footwear business

"SolidWorks is very user-friendly, but what we especially like is how easy it is to make design changes and have those changes automatically propagate to the mold design," Smicklevich notes.

### Winning the race to market

With SolidWorks software, engineers at Remington Products have achieved a 25 percent reduction in design cycles and a 20 to 25 percent improvement in product time-to-market. The company has achieved this lead over the competition because its engineers can now more efficiently design the company's foam inserts and accompanying molds.

"Most of our products involve very organic shapes, and many do not have a straight line in the entire design," Smicklevich points out. "Especially with footwear, we deal with free-flowing curves—with constantly varying radii throughout the geometry—which we have to blend together aesthetically.

"With SolidWorks, it's amazing how easy it is to create a nice flowing surface—with no facets or breaks—using just a few sketches, some lofts and sweeps, and some boundary surfaces to blend them together," he adds. "We have been pleasantly surprised with SolidWorks. It is a very powerful package, is reasonably priced, and has enabled us to pick up the pace and win the race to market."

### Better responsiveness means more business

Keeping and winning customers in the footwear insert market demands shorter turnaround times and effective design presentations. Since moving to SolidWorks, Remington Products designers can quickly and inexpensively share rapid prototypes of design concepts with customers, gather critical feedback, and refine designs.

"In our business, the customer can never be sure about what he or she wants until they have it in their hands," Smicklevich points out. "In the past, we often had to invest in tooling to create an actual prototype for customer approval and then incur the costs of design changes. With SolidWorks and our 3D printer, we skip the prototype mold-manufacturing step—a huge, unnecessary cost—and can modify designs quickly and easily. The process also occurs at a more rapid pace, which enables us to respond to new product inquiries faster and more cost-effectively."

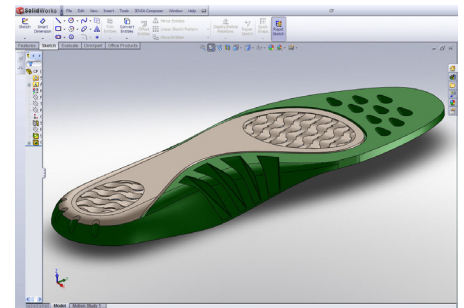
### Tooling improvements cut waste

SolidWorks has done more than help Remington Products eliminate costly prototype mold manufacturing. The software drives additional efficiencies and cost savings in tooling design and production. The link between part and mold designs—as well as the integration of SolidWorks and SolidCAM tooling software—has enabled Remington Products to slash its scrap/rework costs by 15 to 20 percent.

"We have realized tremendous efficiency gains in design and mold development since moving to SolidWorks," Smicklevich says. "We are creating designs and making molds faster, and the quality of our molds is improving. We have had a really good experience with SolidWorks."

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Mickey Smicklevich  
Engineering Manager



With SolidWorks design capabilities, Remington Products can more rapidly and cost-effectively produce its foam-cushioning inserts and footwear products.



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