

## Mold Making Veteran Expands Into Product Design With VX

There are two mainstays in the American toolbox: The Stanley Works and the ubiquitous utility knife...and they're often one and the same. As a worldwide supplier of tools, hardware, doors, fastening systems, automatic doors, storage systems and hydraulic attachments for professional, industrial and consumer use, The Stanley Works is always in search of ways to enhance their ability to deliver, in a timely manner, innovative, professional-grade products. As part of this search, Stanley seeks out innovative vendors who can help them bring high quality products to market faster and with less cost.

**"With VX Overdrive, we get 3D design, moldmaking and CNC machining in one package ."**

Stanley recently asked one of its regular mold making suppliers, Newport Tool and Die, to consolidate the design of two utility knives into one common set of molds to save costs in expensive tooling while at the same time expanding the feature sets of both knives. Newport Tool and Die had previously built tooling for Stanley and had also been making rapid-turnaround product design modifications for some time-and in the process established a working relationship with Stanley that grew to include design collaboration.

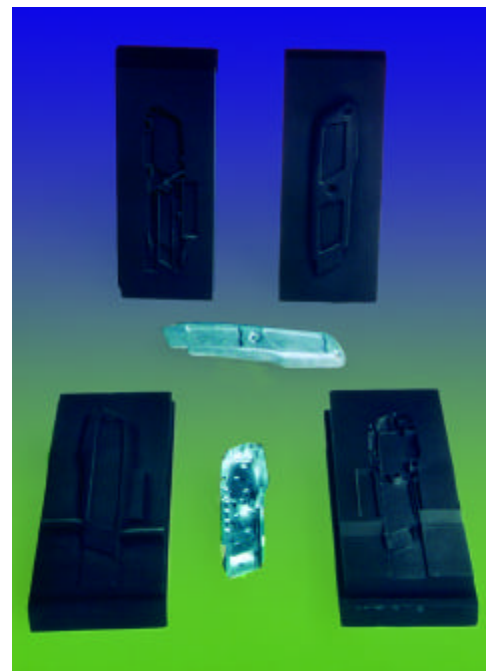
### Newport Tool and Die

Newport Tool and Die was founded in 1951 by two machinists in the basement of a restaurant. From their humble beginnings, Newport Tool has grown to span five buildings in Middletown, Rhode Island. Although Newport Tool occasionally produces tooling for plastic injection molds, its primary business is making metal injection molds, which range in size from 1,500 pounds to 14,000 pounds. Customers have come to rely on

Newport Tool and Die because their expertise in mold making saves money and keeps projects on schedule.

Newport Tool was one of the first companies to use EDM in the early 1960s and began to use CNC equipment in 1984. Since Newport was primarily a mold maker, its primary interest has been mostly in CAM tools rather than CAD. It started using 2D CAD in the late 1990s, and as Newport's relationship with Stanley broadened to include design collaboration, it began a year-long investigation into upgrading from 2D to 3D CAD software.

In considering new CAD software, Newport Tool wanted a solution that would continue to help them save their customers money and would also complement their core mold making business. While the cost of the software was one consideration in keeping



**Single Set of Molds Produces Cast Metal Bodies for Two Different Knives**

With VX Overdrive CAD/CAM software, mold making experts at Newport Tool and Die helped The Stanley Works create a utility knife that consolidates the design of two knives into the new product that offers expanded features.



costs down, the company also had to consider the overall cost of the CAD solution, which included the hardware platform for running the software, the cost of training their personnel to use the software and the cost of interfacing with their CAM software.

### **VX Overdrive CAD/CAM Software**

After taking a broad look at many CAD packages, Newport Tool and Die decided on VX Overdrive™ CAD/CAM software from VX Corporation. "The decision to use VX Overdrive was a no-brainer," said Mark Nardelli, the Newport Tool and Die shop manager. "After evaluating a broad range of CAD solutions, we were delighted with VX's integrated CAD/CAM solution. Not only did we get 3D design with VX®, we also got mold design and CNC machining in one package that runs on a relatively inexpensive PC platform. Plus, the learning curve was short, and an added benefit that we often forget is that it's actually fun to use, if you can imagine a CAD system as being fun."

### **One Set of Molds for Two Products**

With VX, Newport Tool was able to incorporate into one set of molds the best of two distinct models: a safety knife with a mechanism that automatically retracts the blade and a utility knife with a fixed and exposed blade. Using existing designs of both knives, Newport designers were able to create the new mold fairly fast. "VX software significantly cut turnaround times for me personally as well as for the company," said Nardelli. "This project might have taken three weeks or longer before, but now with VX, the design work and documentation were accomplished in six days and generating the NC code was done in a half-day."

The resulting new Stanley model incorporates the safety knife retraction feature into a utility knife that has two crucial design components: the blade slider and the blade. By helping to redesign the casting body component, Newport and Stanley were able to standardize the casting for two independent utility knife functions: hand retractable and spring-loaded safety retractable.

**"VX's IGES is the fastest and most accurate translator that I've seen."**

Previously, Newport Tool had used 2D designs and would use IGES translations or work with paper drawings to create tool paths. Often, the files sent from product designers to Newport Tool for tooling were little more than a shell surface indicating no wall thickness or draft angles. The typical turnaround time for Newport Tool under these circumstances was five-and-a-half weeks to create the final model.

Newport Tool now uses VX Overdrive for both CAD and CAM, and VX IGES translators have been especially useful for directly importing model data generated by other CAD packages used by third-party designers. "VX's IGES translators are among the fastest and most accurate that I've seen," said Nardelli. With VX Overdrive, Newport Tool and Die expects to further expand its capabilities and offer real-world product design that delivers competitive advantage to its loyal base of long-time customers.



**VX** Shaping the future of CAD/CAM™

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