

StudioTools to go back 10 or 15 steps, tune an underlying curve and then have its associated surface automatically update," Seiter says. "We like to rough a design in and then iteratively refine it until we are happy with the finished product. Tangency/curvature continuity and direct modeling also add to our ability to be creative and refine designs as we go."

A Few Challenges

The software implementation was smooth, but the learning curve provided some minor challenges. "We were entirely new to surfacing when we bought the software, so it took a little time to switch gears from a mechanical CAD approach where everything is dimensioned and either linear or circular to a more organic, curve-based design approach," Seiter explains. "We bought all of the educational materials available from Alias and self-trained to get up to speed on the software. We tried the typical car/consumer products approach to surfacing, but still couldn't get the kind of control over our fuel tank surfaces that we wanted. Eventually we paid a top automotive concept designer to help on our first tank project. He is an expert with StudioTools and showed us a new workflow and some tricks with the software that we weren't yet aware of. We've been successful doing projects on our own since then and use a number different workflows based on the task at hand."

Since adopting StudioTools, Wild West has increased production 100%, and its manufacturing facilities have expanded two-fold. Wild West's in-house design center gives the company control over the style and performance of its products without facing the design limitations of outsourcing. "Because of our in-house design studio, we can take a surface model to the machine shop immediately," Seiter says. "This not only helps get the product to market quicker, but since this process can happen a few times a day, outsourcing would be very expensive, taking weeks or months." The company estimates that it saves at least \$75,000 per fuel tank project by doing the design and tooling in-house.



Wild West Motors' Dragoon chopper marries old-school and new-school design concepts.

Seiter has good advice for other manufacturing companies looking at doing something similar for a different type of product. "You really need to do your homework. Every company's needs are different and yet we all must get to market quickly with the best designs," he says. "Long gone are the days of boxy, unfriendly and simple-shaped designs. I would think that in many industries, solid modeling is only one part of the equation any more. In order to entice customers, designs incorporating high-end surfacing can make all of the difference. Among other things, I would factor workflows, collaboration and interoperability between CAD/CAM/CAID packages in a decision."

The new technology is a major factor in the company's successful designs, but Seiter also gives credit where credit is due: "For us, StudioTools is like an F/A-18," he says. "It's an incredible weapon, but it's only when in the hands of a highly qualified individual and when used in conjunction with others on the ground and in the air that it realizes its full potential. Ultimately, it's not just the software itself, it's how the team puts it to use that dictates the level of success."