# Improving die design

## Logopress3 boasts user-friendly features for increased efficiency

**F**or the past 20 years, Logopress Corp., Pouilley-les-Vignes, France, has developed die design software for the tool and die industry, and it's the only company that exclusively develops such software. Although the company is based in France, its products have seen much success in the United States through resellers. Accurate Die Design Inc., New Berlin, Wis., is one company that helps increase the popularity of Logopress' latest technology, the Logopress3.



**Logopress3 can be used for all types of stamping dies, including those with linear bends, automotive-type parts and round-drawn parts.**

### Versatility is key

Logopress3 was introduced in the United States in 2004. The 3-D die design software works within SolidWorks, a CAD designing program from SolidWorks Corp., Concord, Mass. It was the first software package of its kind to achieve the SolidWorks Gold certification status.

"Logopress3 provides more tools that the tool and die designer needs in order to be more efficient when designing dies, tools that SolidWorks by itself doesn't have," explains Ray Proeber, president of Accurate Die Design Inc. and a certified SolidWorks professional. "Although Logopress3 runs in SolidWorks, the part you're going to design the die for doesn't need to be generated in SolidWorks. It can come from almost any CAD system."

Proeber says Logopress3 can unbend or flatten parts from any CAD system, regardless of whether the parts have linear bends or if they're automotive-type parts with double-curved surfaces. The unbending function automatically calculates the k-factor and the bend allowance for each bend. The software also includes tools for handling springback and moved-center partial bends.
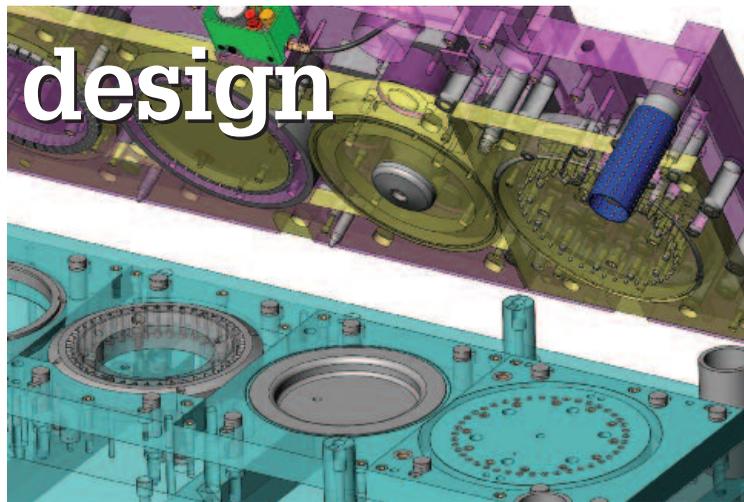
After producing the flat blank and generating the other stages for the strip, Logopress3 takes the data and creates a strip layout.

"The strip layout portion nests parts and provides tools to create an accurate strip layout using solids, not just surfaces," says Proeber. "When you're done modeling the strip, it looks just as it does after you run the die. But the designer can also use surfaces at any time during the process if he wants."

The Tool Structure Assistant allows the designer to quickly model the main die components. "As you're modeling the die, the components are automatically receiving your customer-assigned job number in order to keep the parts differentiated from other dies you've designed," says Proeber. Heat-treat requirements, material types and descriptions are applied to each part and are automatically extracted to the bill of materials. "Logopress3's mating interface is one of the many items that enhances SolidWorks, making it easy to use for die design," says Proeber.

### Ease of use

Proeber says one of the most appreciated aspects of Logopress3 is the Intelligent Animation feature and the associated Dynamic Interference Detection feature. With no special setup required, the user presses the tool animation icon and enters three numbers, which represent the press stroke, stripper travel and strip lift. The software animates the die as if it were running in the press and detects all dynamic interference, including any issues with the strip as it progresses through the die.

Logopress3 automates the creation of cutting punches, as well as 2-D linear bending and 3-D double-curved forming punches. When mounting the cutting punches, the software cuts the opening through the entire stack of plates in one shot, adding all cutting and stripper clearance. Recently, the software package implemented the automatic creation of drawings, so as the user creates the solid model of the die, the drawings are automatically generated in the background.

"We've been using Logopress3 for about eight months, and it's made the transition from 2-D to 3-D simply and easily," says Scott Maxwell of K-Tek Corp., Baldwin, Wis. "The software is easy to follow, and it's enhanced our tool building and decreased our debugging time by about 80 percent. I'd never want to go back to 2-D after using it."

Logopress3 is sold in 29 countries. As Logopress celebrates its 20th anniversary this year, the company says it will continue to update its 3-D technology and improve its software packages to provide even more productivity-enhancing solutions to its customers around the globe. **FFJ**