

Tool & Die

more time," he continues. "In fact, Logopress3 will tell you whether or not the bolt that you're putting in the tooling is available. If you size a 6-in.-long bolt, and it's not available, the software will tell you. It also produces a bill of materials for all the various components in the tooling, such as springs, nitrogen gas springs and properly sized bolts. It has interference detection between all four tool assemblies; the upper, middle and lower plates; and the strip, which can save you from a lot of problems when the tool is finally produced."

Making strides

Schmit also says there are some parts SolidWorks couldn't unfold, which was important to him for die design.

"Now, with the Logopress3 add-on, it does a really nice job of unfolding a part, especially for linear bending," he says. "You can get a strip layout quickly. We also use it for estimating too, just to give us a better idea of what that tool will look like when we're coming up with our estimate."

Schmit says Oldenburg Metal Tech customers will provide a model of a part, and he'll then unfold it and give it to the estimator for a quote. SolidWorks itself wouldn't allow the company to do this in many cases.

"Right now, I would hate to design a die without Logopress3," says Schmit. "I definitely recommend this software to anybody who's doing tool-design work. It makes my life a lot easier."

He also says the com-

pany builds all types of tools, from complex, multistrip progressive dies to weld and assembly fixtures. One of its largest dies was 12 ft. long.

Full of features

Logopress3 software offers various functions. One is a flattening function that allows the user to quickly and easily approach the theoretical blank of 3-D formed parts. This function helps with quotes and designing dies. It also minimizes development time in the press.

Key functions of the software include managing native and imported data; controlling solids, surfaces and material thickness; a customizable material database; and a choice of the stamping start area and direction. It also allows the definition of pinched and locked areas, thinning and thickening information, and stress and strain data.

With only a few mouse clicks, the unbending functions will unfold a part, and then the intermediate stages can be modeled to define the process for a strip layout. This can be done from a native SolidWorks model or from an imported model without any specific preparation.

These unfolding and unbending features can be edited, allowing a full unbending to be switched to a partial unbending. The partial unbending angle value can be changed, and the spring-back and the bend al-

lowance options can be managed.

The strip layout module can be used for both progressive and transfer dies. It allows quick and easy modeling of the true solid 3-D strip.

The Logopress3 strip module can be started from a blank or from a folding and stamping process that was first defined using the Logopress3 unbending and flattening tools or from customer-provided imported data.

All kinds of parts, even those with non-constant thickness, are able to be controlled. It also allows the management of multiple parts in one strip, whether they're identical, mirrored or different.

The Logopress3 strip layout module also includes features and capabilities for round draw parts.

Key functions include automatic computation of each intermediate stage, automatic determination of what draw reductions are used, a customizable computation database, automatic recomputation when changing a radius or diameter, stripper pressure computation, automatic and customizable Web management, and graphical overlays of previous or subsequent stations.

Logopress3 also includes a tool structure assistant that allows fast modeling of the main die components. It's useful throughout the die-design process when additional plates need insertion.

In addition, the die-design software features a dynamic animation command that automatically does interference and collision detection throughout the die while showing the entire die operating as if it were in the press, including the strip lifting and advancing with each press stroke.

This helps catch mistakes in the design stage, saving time and resources. **FFJ**

Accurate Die Design Inc.,
New Berlin, Wis., 262/938-9316,
fax: 262/938-3933,
www.accuratediedesign.com.

Oldenburg Metal Tech Inc.,
Port Washington, Wis., 262/284-6384,
fax: 262/284-7048,
www.oldenburgmetaltech.com.

Reprinted from FFJournal® January 2010
Copyright Trend Publishing Inc.

