

NX

## Sridevi Tool Engineers

Increasing profitability through improved mold-making technology

### Industry

Industrial machinery

### Business challenges

Profit margins eroding due to increased competition

Automakers' demands for increasingly shorter cycle times

Rigorous quality expectations

### Keys to success

In-house design process using NX

Design that automates many aspects of mold design

Part-mold associativity that speeds design changes

### Results

Mold designs completed in half the time

Mold development cost savings of more than 40 percent (due to increased designer productivity)

Productivity gains of more than 50 percent

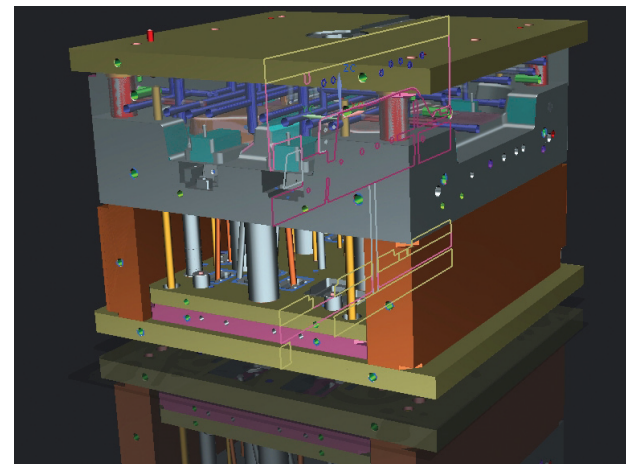
**A design process built on NX Mold Design allows mold makers to realize productivity gains of more than 50 percent and cost savings exceeding 40 percent**

### Continuous improvement drives growth

Sridevi Tool Engineers Pvt. Ltd. (Sridevi) was founded in 1972 to manufacture molds and dies. The company has prospered in both domestic and international markets ever since. In 1986, Sridevi was the first commercial tool shop in India to adopt computer numerical control (CNC) machining, a move that gave the company a strong competitive advantage and helped it to grow at a much faster pace than other tool shops in India. In 1998, Sridevi formed a joint venture with Italy's second-largest tool company, Comec S.p.A. Called Comec India, this organization serves the European automobile market.

Today, in addition to the automakers, Sridevi provides molds to white goods and consumer products manufacturers. Customers include Honda, Yamaha, GM, Maruti, Ford, TATA, Eicher, Fiat and Stanley.

Sridevi's management aims to ensure ongoing growth and profitability through continuous improvements to the company's expertise, design process, products and services. This involved, for example, the implementation of a quality



assurance system based on the ISO 9000 standard. Another aspect involved changing the company's design process from one provided by an outside vendor and based on 2D computer-aided engineering (CAD) to an in-house 3D CAD solution equipped with industry-leading mold design capabilities.

"There were numerous drawbacks to the old process," says Surendra C. Kalyanpur, Sridevi's managing director. Kalyanpur notes, "Our design vendor was not able to deliver designs as fast as we needed them to satisfy our customers."

Mukesh Kansara, manager of design at Sridevi, adds, "It was very time-consuming to incorporate customers' changes into a design since that meant going back to the vendor. And once a design was complete,

“Quality is tremendously important to Sridevi, and especially in this regard, the decision to go with NX has been very beneficial.”

Surendra C. Kalyanpur  
Managing Director  
Sridevi

“NX Mold Design encompasses best practices derived from a wide base of mold manufacturers. We are taking advantage of these techniques and directly applying them to our mold design process.”

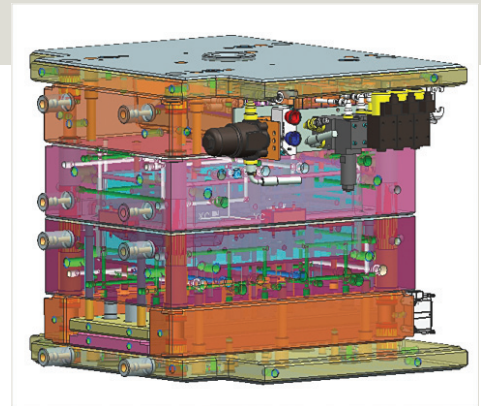
Narottam Jethva  
General Manager  
Sridevi



it had to be transferred to our CNC system. This introduced the possibility of human error, which in turn caused problems during manufacturing.”

#### **NX and automated mold design functionality**

After deciding to bring the design work in-house, Sridevi outlined the requirements for its CAD software: advanced functionality for mold design, user friendliness (including an intuitive interface), ease of modifying existing designs, and parametric modeling. In contrast to other options they evaluated, NX™ software from Siemens PLM Software met all of these requirements. “Other programs were



very weak in CAD and not suitable for our type of intensive product development that requires frequent and rapid design change,” says Narottam Jethva, general manager at Sridevi.

“We decided to implement NX, including mold design and industrial design products,” Jethva explains. “A key part in the company’s new design system is NX Mold Design, the knowledge-driven automation module that captures the expert knowledge of mold designers to create a fast, step-by-step approach to mold development.

“After importing customer part files in IGES format, we use NX Mold Design to automatically create portions of the mold, such as the cavity and the base,” notes V. Veerapandian, assistant manager of design at Sridevi. Designers add components such as electrodes and gates by selecting those parts from a component library, or using built-in tools to create them quickly. For example, to place a gate, they simply indicate the location and enter the specifications. NX Mold Design generates the geometry and inserts the gate into the model.

## Solutions/Services

NX  
[www.siemens.com/nx](http://www.siemens.com/nx)

## Customer's primary business

Sridevi Tool Engineers Pvt. Ltd. designs, develops and manufactures injection molds used in the production of automobiles, white goods and other products.  
[www.sridevitools.com](http://www.sridevitools.com)

## Customer location

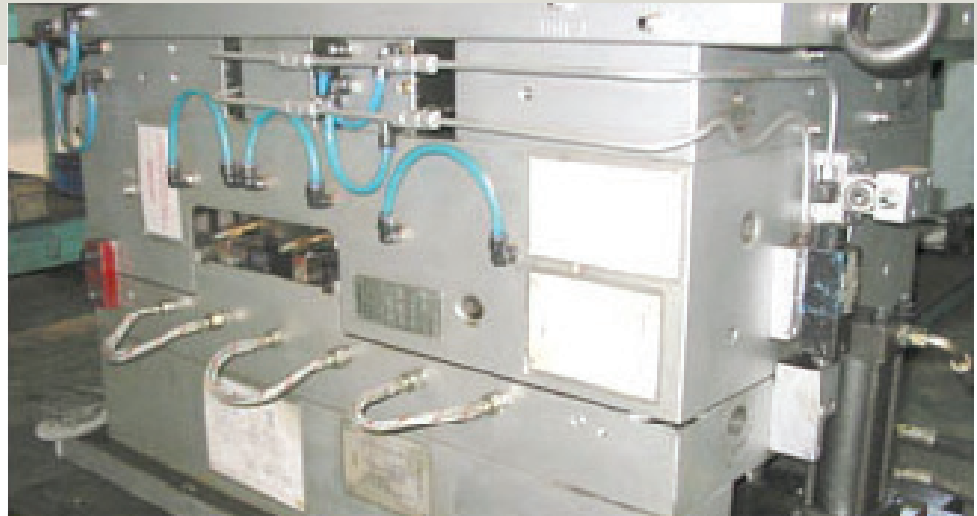
Thane, Maharashtra  
India

## Partner

Gnosis Infotech Pvt. Ltd.

**"The changes we make to the part model automatically update the core and cavity of the mold. This has sped the change process significantly."**

Mukesh Kansara  
Manager of Design  
Sridevi



NX Mold Design maintains associativity between the part model and the mold tooling, so that when a customer changes the design of its part, once the NX part file is updated at Sridevi, the changes are automatically propagated to the mold design. "For example, changes we make to the part model automatically update the core and cavity of the mold. This has sped the change process significantly," says Veerapandian.

In addition, Siemens PLM Software partner Gnosis Infotech Pvt. Ltd. helped to accelerate the company's mold design process through timely consulting and training, and continues to provide valuable support.

## Developing molds in half the time, while increasing quality

Because mold designers no longer spend most of their time creating geometry, they are twice as productive as they were in the past, completing mold designs in half

the time it used to take. In addition, the designers' enhanced productivity has lowered the cost of mold development, according to Veerapandian, who reports that those costs have been reduced by more than 40 percent.

"Quality is tremendously important to Sridevi, and especially in this regard, the decision to go with NX has been very beneficial," says Kalyanpur.

Kansara adds, "NX Mold Design encompasses best practices derived from a wide base of mold manufacturers. We are taking advantage of these techniques and directly applying them to our mold design process. With significantly increased productivity, we are also realizing important gains in the quality of our molds."

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