SIEMENS
Ingenuity for life

Consumer products and retail

Magraa Fashions

Fashion accessory manufacturer increases efficiency with NX

Product

NX

Business challenges

Satisfy customers' expectations for innovative product solutions

Improve mold design and fabrication capabilities

Reduce material waste during fabrication

Keys to success

Utilize NX CAD to increase efficiency

Utilize NX CAM to reduce mold making time by 50 percent

Create gouge-free toolpaths and reduce machining time

Model products in 3D to optimize material usage

Results

Decreased processing time from 15 days to six days

Attained more accurate estimates of machining time and mold cost

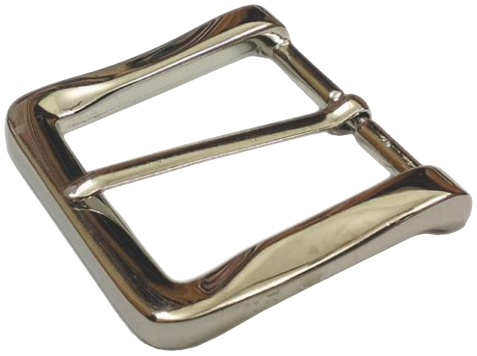
Reduced trial-and-error development

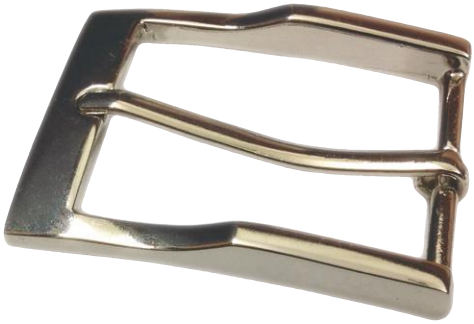
Integrated CAD/CAM and tooling capabilities enable in-house manufacturing to improve quality and deliver faster

A world leader in fashion

Magraa Fashions, based in Bangalore, India, designs and manufactures a diverse range of contemporary fashion accessories. The company's products include buttons, buckles, metal badges and logo plates, zip pullers, toggles, beads and key holders, which are used on leather bags, leather and textile garments, footwear, belts, and promotional items. With customized designs, reliable delivery and an excellent quality/price ratio, Magraa has become a leading player in the world of fashion accessories.

Magraa manufactures its accessories using a variety of materials including polymers, zinc and brass, and offers them in different finishes like direct-to-metal (DTM) acrylic, solid colors, electroplating, and imitation wood, leather and granite. The company's manufacturing facilities are equipped with advanced manufacturing technologies that include injection molding and die casting machinery, press shop, electroplating shop and laser marking and engraving machines. All Magraa accessories are designed and manufactured in-house, and every step is monitored to ensure quality and comply with international standards.





Bringing work in-house

In the past, Magraa had outsourced manufacturing, and experienced many problems and delays. Vendors were using inappropriate tools, and parts were not produced as required. Manufactured parts did not match their designs due to problems in visualization. The result was significant re-work to achieve the desired quality, with major delays and errors in mold designs leading to considerable monetary losses.

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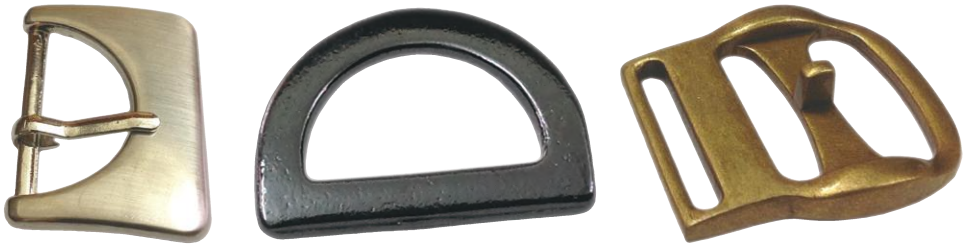

To counter these problems, Magraa made the decision to bring manufacturing in-house. Magraa sought a solution that would enable the company to make its molds in-house for greater productivity and to save design time so that the company could deliver on committed dates.

The company selected NX™ software from product lifecycle management (PLM) specialist Siemens PLM Software. Magraa valued NX for its flexible computer-aided design (CAD) capabilities, which would help the company fulfill the unique requirements of customers, and the integrated computer-aided manufacturing (CAM) and tooling design capabilities, which would help the company improve mold quality, improve fabrication, minimize manufacturing errors and reduce material waste.

Magraa Fashions uses the visualization tools of NX, which enable the company to carefully inspect all details of its accessory models. "With a fully visualized 3D model we can be certain that dimensional and styling modifications preserve the aesthetic aspects of the final product," says K. Manogaran, managing director, Magraa Fashions. "We can cross-check all dimensions in both part and assembly views to avoid trial and error. Modeling products in 3D also helps to optimize material usage."

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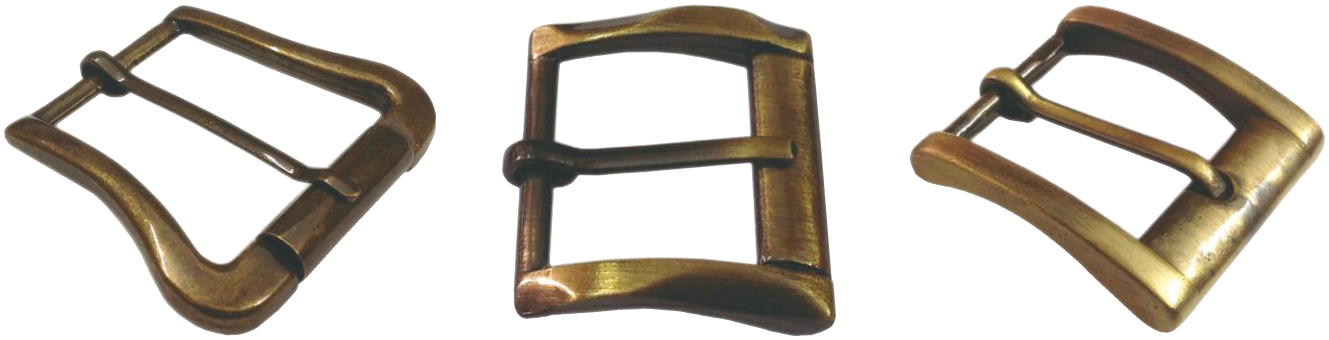

Mold design and manufacturing with NX

With the integrated CAD/CAM capabilities of NX, Magraa Fashions can fully develop component models, and then use the models directly to design and manufacture molds. The company uses the numerical control (NC) programming capabilities of NX CAM to create gouge-free toolpaths from the part model, and in most cases can machine the mold cavity directly on the plate. "This approach helps us avoid electrode design, filing, and electrical discharge machining, and can reduce mold making time by more than 50 percent," says Manogaran. Many of the molds for Magraa Fashions products cannot be completed without electrical discharge machining, and in such cases the company uses the part model to streamline electrode design and machining with NX.

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Solutions/Services

NX CAD
NX CAM
www.siemens.com/nx

Customer's primary business

Magraa Fashions Pvt. Ltd. produces an extensive range of premium quality accessories used in various lifestyle products, including garments, leather goods, footwear, belts and promotional gifts.
www.magraa.in

Customer location

Bangalore
India

Partner

DesignTech Systems Ltd.
www.designtechsys.com

Support from DesignTech Systems

Magraa relies on DesignTech Systems, a Siemens PLM Software channel sales partner, for system implementation, training and ongoing support. Magraa credits its success with NX in part due to the excellent support staff from DesignTech Systems, which helped the company with personal visits, telephone support and periodic training and updates on new releases of the software. DesignTech also assists in building post-processors for Magraa's NC machinery.

Solid results

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