

laser's edge

The Rapid Prototyping, Manufacturing and Product Development Newsletter



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An Interview with Lori Yin of Elmer's® Products Inc.

learning curves



The quality of metal from Stereolithography

Stereolithography (SLA) can be used to create limited-production parts with exceptional rigidity and high-temperature resistance, quickly and accurately.

However, SLA-generated parts do not traditionally have the same durability as metal ones, or provide electromagnetic interference (EMI) shielding. Thus, until now, time-consuming and expensive machining or casting processes have been the only options for low volume production of metal parts.

DMS Somos® recently announced a unique process that marries SLA with advanced nickel-plating technologies. This new process combines the excellent physical properties of DSM Somos® NanoTool™, and other SLA resins, with electromagnetic characteristics of nickel-plate to provide durable parts that perform like metal, without costly and time-consuming machining. These Metal Clad Composite (MC²) parts are useful for prototyping and testing, and are ideal for cost-effective, low-volume production.

In MC² process the surfaces of SLA-generated parts are ionized using a proprietary solution and copper is applied. The copper is necessary for the nickel layer to bond to the part, which is applied to a thickness specific to each design. The result is a final

product that is significantly more durable than standard SLA parts and provides EMI-shielding equal to machined parts.

Though the cost of metal-plated SLA parts is greater than non-plated ones, MC² parts can be three-to-four times less expensive to produce than those created using machining or casting. In addition, production time for MC² parts can be as little as one week.

Laser Reproductions is pleased to have been chosen as one of only three companies in the world to partner with DSM Somos® to offer the licensed MC² process for rapid prototyping and low volume production.

Laser Reproductions has an extensive variety of processes and a vast range of materials to accomplish your rapid prototyping, manufacturing or product development goals. Call 614.552.6905 or visit www.laserrepro.com to learn more.

laser's edge is a quarterly newsletter published for those in the rapid prototyping, manufacturing and product development industries. It is produced by:



behind the scenes



Profile: Mark Jones

Mark Jones, our SLA-operations manager, arrived at Laser Reproductions in April 2001, and has been a key team member ever since.

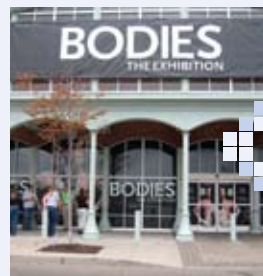
During his tenure at Laser, he has held many positions. He began in our finishing department, then was quickly promoted to shop supervisor. Later Mark advanced to SLA and quality control manager.

As Laser Reproduction's SLA-operations manager, Mark oversees the entire SLA process and the complex machinery involved. He is a part of our product-creation service from inception to finished product. Mark strives to ensure quality is ingrained into each part that Laser Reproductions delivers. Mark's drive to support the Laser team led to his selection to also oversee facility maintenance. Mark is always willing to do whatever is necessary to serve our customers.

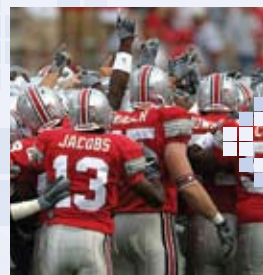
Mark currently resides in Westerville. He is an incredible dad to one daughter and two sons, and a proud grandfather of three. Like them, we think we're lucky to have Mark as part of our world.



Laser Reproductions was pleased to host the CD 101 ice cream truck for its **Ice Cream Stress Release Break**. Employees enjoyed a beautiful day with delicious Velvet ice cream and relaxing with co-workers.



Laser employees enjoyed a unique opportunity, learning about the wonders of the human body at "**Bodies...The Exhibition**" at Easton Towne Center in September.



Laser Reproductions employees decorated their offices November 16 to celebrate their **OSU pride** before the big kick-off in Ann Arbor. **Go Bucks!**

in production



client Laura Hamrick
project OnTray

Momprenuer, Laura Hamrick, contacted Laser Reproductions to prototype her concept, the OnTray. The OnTray is a simple, small container that snaps onto the handle of a standard shopping cart to carry snacks and activities to occupy little ones while their parents shop. During the planning process, Laser helped Laura determine the optimal design and chose Somos® 8110 stereolithography (SLA) resins to construct a prototype. With Laser's help, Laura's product is wildly successful, is marketed through multiple avenues, and it was featured on QVC.



client Jonathan Chertok
project Mathematical Models

As a research project, architect Jonathan Chertok uncovered a series of mathematical models. Jonathan was able to create computer-generated designs of these singularities; however, he lacked the technology to develop actual tangible models for an upcoming exhibition. Jonathan contacted Laser Reproductions and together they determined that 18420 High Resolution Viper Si® stereolithography (SLA) resin would create an excellent exhibition-quality product. With Laser's help, Jonathan showcased his work in Paris emphasizing the relationship between sculpture and mathematics.

laserworld

New Company Library for Employees

Laser Laser Reproductions is proud to announce the completion and opening of its Laser Library. The materials available relate to Laser's industry, business strategy, learning, self-improvement or other topics that give employees opportunities to educate themselves further in their careers. The library was designed using guides available from the Library of Congress and will provide excellent resources to all Laser employees.



Laser Reproductions Honors Employees

Each week, Laser Reproductions recognizes one employee with a Helping Hand Award for exceptional work performance. The employee with the most Helping Hand Awards at the end of the year receives a bonus and their name on a plaque that hangs in Laser Reproductions' main lobby next to other company awards. Congratulations to all award-winners through the third quarter of 2007.

Employee with Four Awards
Kevin Turner

Employees with Three Awards
Karen Bordner
Bill Levings
Susan Sanders

Employees with Two Awards
Travis Behara
Tyson Bourk
Ray Crabtree
Darrel Disbennet
Rose Moore
Jason Thompson

Employees with One Award
Deann Clark
Darryl Cummins
Kenny Davidson
Ashley Hileman
Cody Jones
Justin Mannon
John Parsons
Octavia Sias
John Smith
Scott Vreeland



creating impressions

Profile: Elmer's® Products Inc.

Lori Yin is an industrial design engineer for **Elmer's® Products Inc.** Elmer's® Products Inc. is headquartered in Columbus, Ohio and has been a trusted brand and industry leader for nearly 60 years. Elmer's produces a variety of well-known adhesives, arts and crafts, educational and office products for use at home, school or business. Elmer's branded products are developed to provide project solutions and to fulfill the consumer's inherent need to create, build and learn.



How long have you worked with Laser Reproductions?

We have been working with Laser for about a year, and are pleased with the relationship. They are professional and accessible, and are always willing to do anything it takes to get a project completed. They always deliver the product that they said that they were going to deliver, and communicate throughout the development process if any changes need to be made.

What do you value most about working with Laser Reproductions?

Laser has the resources to produce multiple projects for us at one time, even rush projects. Because of their vast variety of materials, they are able to develop the prototypes we need and often suggest using different materials than I request in order to make a prototype the best that it can be.