



Good Afternoon Our edition of Shaping and News centers around new capabilities and technologies American Trim. Our business believes in the idea that in competitive environment, the difference between a good and great company rests in its to innovate.

In The News



ISO 9001:2000

Steve Hatkevich, our director research and development, is scheduled to present at PMA's Annual Technical Conference Cleveland on Monday, April 27. The conference is centered on advancing methods in current future metal forming technologies. Hatkevich will be presenting information discovered through our into electromagnetic forming. title of his presentation is *Electromagnetic Forming: Enhancing and Expanding Traditional Metal Forming Technology*. [Learn more about electromagnetic forming](#)

Conference Information:
April 26-28, 2009
Holiday Inn Hotel Cleveland
Independence, Ohio

A Devotion to Innovation

American Trim's innovation strategies are featured in the 2009 edition of Metal Forming magazine. The article entitled, *Devotion to Innovation*, much of the research and development that has occurred

Solving Corrosion Problems with EC²

In 2007 we opened an Alodine® EC²™ coating line in our facility in Cullman, Alabama. EC² is a corrosion, abrasion, and wear resistant coating that is applied to aluminum and titanium substrates. This coating was developed by the Henkel Corporation which has also brought such great industrial products as Loctite®, Teroson, and Bonderite® to the market. In the last year and a half we have worked with several companies that experience problems with corrosion in their industry. Through this work, we have been able to develop a white paper that explores how EC² can help solve, not only corrosion problems, but a variety of manufacturing issues.

Our White Paper documents how EC² can:

- Improve corrosion and wear resistance- coating recently surpassed salt spray test of 7500 hours
- Accomplish better paint adhesion
- Achieve more uniform coating thickness
- Eliminate coating layers and process steps
- Increase air and fluid flow based on the ability to incorporate new manufacturing methods and materials that are now possible because of the Alodine® EC²™ process.



Scribed with 7500 hours Salt Spray- There is no creep from the scribe.

[To download a copy of the white paper](#) select the checkbox for *Alodine® EC²™ White Paper* under *Other Information*. After reading how the electroceramic coating has helped a variety of industries to solve their corrosion or performance issues, you can get more information by attending a free webinar on Wednesday, April 29.

[Register for Webinar](#)

High Velocity Metal Forming (HVMF)

HVMF is a method of forming metals under a high strain rate by accelerating a work piece into a form die at speeds approaching 300 meters per second. Traditional metal forming is done at low strain rates with impact work being done at less than 1 meter per second. As part of grant from the State of Ohio, American Trim, The Ohio State University, and General Motors have been exploring HVMF as a process to construct fuel cells for replacement of the internal combustion engine for automotive

American Trim in the recent
These new and enhanced
capabilities keep American
the forefront of the industrial
community as a sustainable
respected manufacturing
company.

[Read Metal Forming's Article](#)

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Metal Finish Development
New Optical Collection
Select any image to see our finish matrix



applications.



Current fuel cell (left) takes 12 cells
to make 1.5 volts. New fuel cell (right)
is paper thin requiring less space.

automotive industry. HVMF allows for volume and costing
targets to be achieved through reduction in processing steps and
more efficient use of manufacturing floor space.

[Read more](#) or [Contact Chris Highfield](#) for more information

Currently, there are prohibitive
issues limiting the
manufacturing feasibility and
use of fuel cells for automotive
applications. One limiting factor
is the ability to form exotic
metal alloys into the required
shapes. The HVMF process
allows these materials to be
formed while the material is in
its hyperplastic state allowing for
complex shapes to be achieved.
The second issue is the need to
address the volume and
economic constraints of the

Design News

Metal Finishes-600 Patterns and Still Going Strong

American Trim's Finish Development Group has been
researching finishing development capabilities and trends. The
finish development research is advancing our design capabilities
and offering our customers a wide range of metal patterns.

The patterns developed are based on current trends and
nature's beauty. Trends in patterns are constantly evolving. You
can see this when looking at the changing design of home
furniture, home decor, and clothing fashion. Our metal designs
based on these popular patterns bring together soft patterns
using hard materials. While trends are based on popular design,
nature's constant beauty can also be seen in our patterns.
Nature's inspiration has brought about the development of such
patterns as stone, animal skin, and rainfall. You can see some of
the over 600 patterns on our [metal finishing matrix](#).

To produce these patterns we are mechanically manipulating
metal to develop an image or pattern. Design patterns fall into
two categories: technical and organic. Technical patterns are
linear and contain an easily repeatable pattern. While organic
patterns are larger, more complex designs that develops into an
image. Organic patterns are popular in architecture whereas
technical patterns are commonly found in smaller applications
such as automobile trim.

"Our challenge in Finish Development is to take a flat substrate
and manipulate its plain rigid appearance and transform it into
an element of visual interest. We do this by incorporating brand
defining pattern work and color together creating a layered
effect. The layering of elements utilizes the substrates reflective
properties to create depth within the finish design," explains
Audra Keiber, our lead finish developer.



A new technique is currently being explored using optical effects to form a pattern. The designs are created by manipulating and layering repeating geometric elements to build visually interesting patterns or visual effects in the substrate. All three of the optic patterns in the series are made from the same basic shape.

[View Metal Finishing Matrix](#)

You can request to not receive any follow-up emails by [clicking here](#).

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