Finishing Facts

PMA Continues Efforts To Repeal Steel Tariffs

Members of the Precision Metalforming Association (PMA) continued their fight to repeal the Section 201 steel tariffs at a hearing in Washington, DC, recently. At a hearing entitled "Monitoring Developments in the Domestic Steel Industry," steel producers and consumers of carbon and alloy flat products testified before the U.S. International Trade Commission (ITC). The hearing was part of ITC's mid-point review of the tariffs. The ITC will present its report to President Bush in September, and the President will determine whether the tariffs should be continued for the full three years or terminated.

Both sides of the issue have been embroiled in a lengthy battle over the tariffs, imposed by President Bush in 2002. PMA represents steel-consuming industries, which have suffered loss of jobs, steel unavailability, poor quality of raw material, a rising cost of steel, declining profitability and loss of work to foreign competition since the tariffs took effect.

Speaking at the hearing, Jim Zawacki, chairman of GR Spring and Stamping, Inc., Grand Rapids, MI, and chairman of the board of PMA, had this to say: "Manufacturing in this country is in as much trouble as it has been since World War II. I am scared for our 220 employees and our families, my six children and grandchildren. Where will they find good jobs in the decades to come? The tariffs make a bad situation worse, which will not help the steel companies. We can't wait 18 more months for relief."

Aluminum Extruders Publish *Buyers' Guid*e

The Aluminum Extruders Council (AEC) has published the 2003 edition of its reference publication, the *Shapemakers Buyers' Guide*. The publication serves as a directory for anyone needing to find an aluminum extruder.

To help promote the various uses of aluminum profiles, the 2003 *Buyers' Guide*

By Dr. James H. Lindsay, AESF Fellow
Deposition Definitions
Define the following:
1. Epitaxial growth
2. Sputter deposition
3. Electroless deposition

4. Electrophoretic deposition (electropainting)

5. Electron beam deposition

Answers are on page 40

Test Your Plating I.Q. #387

will be distributed to 20,000 selected engineers, designers and product specifiers, as well as to AEC members and other interested individuals. Architects, automotive design engineers, and mechanical engineers, are among the people who may receive a copy of the publication in the mail.

The *Guide* lists such information as company headquarters, plant locations, contact names, press sizes, maximum circle size, forms produced, and types of services offered. For more information, or to request a free copy, call AEC at 847-526-2010, or visit www.aec.org.

Water Treatment Course Set for September

The 38th annual Liberty Bell Conference on Industrial Water Treatment and Technology will be held September 30–October 2 in Reading, PA. The conference is sponsored by NACE International. Experts in the field from leading-edge companies will be presenting classes on water treatment chemistry, ion exchange, reverse osmosis and carbon filtration. Attendees can earn continuing education credits toward Water Quality Association (WQA) certification. For information, contact Emer Flounders at 856-779-1700, x17, or e-mail: rustranger@aol.com.

Company News

□ Columbia Chemical, Inc., Brunswick, OH, was recently notified that three of its proprietary finishing process chemistries have been approved by General Motors (GM) for non-fastener applications. The company also received approval from Delphi Corporation for the same process chemistries.

As an approved supplier, all plating facilities that process parts for GM and Delphi may use Columbia products.

Specific approvals are necessary because of the elimination of hexavalent chromates from automotive components, which is a requirement of the End-of-Life Directive adopted by the European Union.

□ Cookson Electronics, Foxboro, MA, a division of Cookson Group, plc., is selling its equipment business. An announcement said the decision will not effect the company's materials businesses, which include Alpha Metals, Fry, Enthone, Polyclad Laminates and Specialty Coatings Systems

(SCS). The decision relates only to Speedline Technologies and its product lines.

Raymond P. Sharpe, president and CEO of Cookson Electronics, stated: "Although Speedline has had a history of technological leadership, the intensity of recent cycles and variability in the equipment marketplace has led us to conclude that it is in the best interest of our customers and shareholders to sell this business and focus our resources on our core business of developing and producing advanced materials for both the electronics and surface finishing industries."

Sharpe said that he wants to find a new owner that is better suited to support the ongoing needs of a high-tech capital equipment company, such as Speedline.

□ Okuno Chemical Industries Company, Ltd., Chuo-ku, Osaka, Japan, recently completed all requirements to become accredited for ISO 9001:2000 quality management standard registration. The accreditation applies to all aspects of the company's operations, including the design, development, manufacture and sale of metal finishing chemicals, inorganic materials and food ingredients.

Okuno Chemical received accreditation for the ISO 14001 environmental management standard two years ago.

President of the company, **Kazuyoshi Okuno**, is a member of the **AESF International Branch**. He has been instrumental for many years in promoting international cooperation among surface finishing organizations, especially in the areas of technical education and information sharing.

□ Viking Corporation, Wichita, KS, is celebrating 25 years of service to the blast cleaning and parts washing industries. The company started out manufacturing blasters and washers for automotive rebuilders.

□ **Faraday Technology, Inc.**, Clayton, OH, has been awarded two grants to support its research in fuel cell technology.

A National Science Foundation grant will support the company's fuel cell research in conjunction with Case Western Reserve University and Dr. Thomas A. Zawodzinski, an expert in the field and Ohio's first Eminent Scholar for Fuel Cell Research. The research will be supported by Faraday's patent #6,080,504.

The National Science Foundation grant will support the study of nanomaterials to improve performance and reduce costs of proton exchange membrane (PEM) fuel cells. **Dr. E.J. Taylor**, founder of Faraday, said: "The doors are now wide open for

In Memoriam:

Thomas W. Moore, 51, a member of the AESF Chicago Branch for more than 20 years, died on July 28, 2003. He was a partner in TWR Service Corporation in Des Plaines, IL. The company was an AESF Research Sponsor for many years.

Tom was a long-time "behind the scenes" supporter of the AESF Chicago Branch and the Chicago Metal Finishing Institute.

fuel cell innovation in Ohio, and Faraday's platform technology—of manipulating non-steady-state electrical fields—can play a key role in moving fuel cell research forward."

Faraday's other fuel cell grant—from the U.S. Department of Energy—will support the study of nanocrystalline materials to drive the cost down and performance up of solid oxide fuel cell technology. "To be competitive with current electricity sources, you have to get the dollar per kilowatt hour down," said Taylor. "The theme is: 'How can we improve the manufacturability.' That is the case for everything we do at Faraday."

General Magnaplate recently completed the criteria to earn registration as an ISO 9001:2000 compliant company at its facility in Linden, NJ. The company is also implementing procedures at its facilities in Texas, Wisconsin, California, and Canada to upgrade to the international quality standard.

□ Saint-Gobain Performance Plastics recently upgraded its quality performance status to ISO 9001:2000 at its facility in Malvern, PA. The facility previously held ISO 9002:1994 certification.

□ Elisha Technologies Co., LLC, Moberly, MO, and Erieview Metal Treating Co., Inc., Cleveland, OH, have reached a licensing agreement. Under its terms, Erieview will dedicate a high-capacity, commercial processing line to handle large volume projects for Elisha. The line will use Elisha's proprietary coating technology on components to provide a completely chromium-free finish that complies with the European Union's End-of-Life Vehicle Directive.

Answers to I.Q. Quiz #387

- Epitaxial growth: When the crystallographic structure of the substrate is reproduced in the growing material. Even the crystalline defects in the substrate are reproduced.
- 2. A vacuum deposition method in which the coating material (target) is removed from the surface of the coating source (cathode) by ion bombardment and deposited on the substrates.
- 3. The deposition of a metallic coating on a substrate by chemical means rather than by electroplating. The workpiece is immersed in a solution containing a reducing agent.
- 4. A process in which an article is anodic while the tank walls or suspended electrodes are cathodic; the coating compound electricallycharged by the applied DC voltage migrates to and covers the workpiece.
- 5. A method of thin-film deposition where electrons are boiled off a heated cathode under vacuum and are used to evaporate the coating material which subsequently condenses on the substrate surface.

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