CANADIAN FINISHING & COATINGS MANUFACTURING MAGAZINE

SIDI

September/October 2012

Businessman Ryan Rattray, and Finishers Brett Appleby and Cameron Oldershaw saw an opportunity to expand and move from the challenging refinishing market to industrial and production finishing. Their three-year-old company, North Shore Finishes Inc. in Barrie, ON, is strictly a custom job shop. Rattray,

continued on page 12

Brett Appleby loads Venjakob Ven Comfort flatline finishing system.

ALSO IN THIS ISSUE

north FINISHES:

TiO₂ Update

\$12.00

- Flame Retardants
- Global Harmonization
- Paint Container Recycling
- Pretreatment and Washing
- Anodizing Trends
- Power Supplies and Rectifiers and...

MUCH MORE!

The Principles Behind a Quick Colour Change



IN THE NEWS

Company News

GMW Approval

MacDermid Incorporated is pleased to announce its recent approval to GMW 16730 with their ZinKlad 1000B (TnT-12) finish. This high gloss, zinc nickel coating will replace the current GMW 4205 specification for all new applications. ZinKlad 1000B (TnT-12) is available exclusively from ZinKlad approved platers. For more information please visit www.zinklad.com

DuPont Coatings Unit Sold for \$4.9B

By Sandra L Anderson

When in comes to Powder Coating in

Industrial Finishing, the demand for a faster, cleaner and more efficient colour

change is continually growing. Those in the

industry explain the ways a quick colour

change can be accomplished based on a customer's needs.

THE FORMULA

John Binder, Marketing Manager, Nordson Powder Coating Systems says, "There is one formula that encapsulates all of the princiDuPont Performance Coatings, (DPC), one of the world's largest automotive coatings suppliers, as well as a global industrial coatings supplier, will be sold to The Carlyle Group, a global asset management company, for \$4.9 billion in cash, the companies announced Aug. 30, 2012. DuPont Performance Coatings consists of

DuPont Industrial Coatings, DuPont Aviation Finishes, DuPont Commercial Finishes, DuPont Refinish, Standox, Spies Hecker, and Nason Finishes. The business has more than 11,000 employees and expects to earn more than \$4 billion in 2012.

continued on page 4

continued on page 15

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Five Years Old

There is something special about being five in the fall. As a child it is a time when you are starting kindergarten or grade one, depending when your birthday is and everything is new. In business, if a company lasts the first five years it is considered successful. Well Canadian Finishing & Coatings Manufacturing (CFCM) magazine is five with this September issue. And in those five years we have gone through a lot and accomplished much. We survived a devastating recession and came out ahead of our Canadian competition. We travel more every year to industry trade shows and events to make sure the industry knows who we are. We are reaching out to new related markets in our coverage. We would like to thank the paint, ink and coatings, industrial finishing and plating and anodizing markets in Canada and our many advertisers for their support of CFCM these past five years. Like any five-year-old a lot has happened to get to this point, but there are still many new things to come.

Please feel free to write Letters to the Editor about anything concerning the industry to sandra.anderson@cfcm.ca

Please contact me if you have any problems. Sandra.anderson@cfcm.ca

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Paint Container Recycling Yes, you really can recycle black plastic cans and more.





Here I am "outstanding in my field" again, this time visiting with finishers Cameron Oldershaw and Brett Appleby at North Shore Finishes in Barrie, ON. See our story on them this issue.

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IN THE NEWS

Continued from page 1

Managing \$156 billion in assets, Carlyle's core industries include aerospace and defense, transportation, energy and power, and infrastructure. The DPC acquisition will be funded with equity from Carlyle Partners V and Carlyle Europe Partners III.

The deal is expected to close in the first quarter of 2013, pending approvals.

"DuPont Performance Coatings is a leader in the automotive and industrial coatings sectors with world-class products and customer service. The business continues to grow and deliver solid results. After a careful review, however, we have determined that DPC's full growth potential would be best realized outside DuPont and through the sale to Carlyle," said DuPont Chair and CEO Ellen Kullman."This transaction is consistent with our vision to be the world's most dynamic science company and long-term strategy of driving competitive advantages in agriculture and nutrition,

advanced materials and biotechnology, which represent high-growth, high-margin opportunities."

Greg Ledford, Carlyle Managing Director and Head of the Industrial and Transportation team, said, "DuPont Performance Coatings is a successful business with attractive market positions, nextgeneration technology and established brands. Through targeted investments we will support DPC's product development and growth objectives as it transitions to a stand-alone company. We look forward to working with management to fully realize DPC's great potential."

Additional details will be provided during DuPont's third quarter earnings announcement. As part of the transaction, Carlyle will assume \$250 million of DuPont's unfunded pension liabilities. www.carlyle.com www.dupont.com

Cytec Initiates Sale Process for Coating Resins Business Cytec Industries Inc. has initiated a formal sale

Wood Coatings Interior & Exterior When Quality Counts



process for its coating resins business, closing its doors after 52 years. J.P. Morgan Securities LLC, the company's financial advisor, is assisting Cytec with the process. Cytec's target is to complete a transaction by the end of the year.

Cytec has been pursuing a strategy to increase the focus on its engineered materials, in process separation and additive technology segments. As part of this strategy, Cytec retained J.P. Morgan Securities LLC to assist in an analysis of alternatives available to effect a separation of its entire coating resins business.

As part of this analysis, Cytec recently announced the sale of its pressure sensitive adhesive (PSA) product line to Henkel for US\$105 million. Full year 2011 sales for the PSA product line were \$94 million.

Cytec also announced earlier this year the acquisitions of Umeco plc, an international provider of advanced composite materials and Star Orechem International Private Limited, an India-based manufacturer of extraction technology that supports the growth of the in process separation segment.

Cytec said it does not intend to disclose developments regarding the coating resins sale process until a transaction is announced, which is estimated to occur later this year.

The coating resins segment includes radcure resins; liquid coating resins and additives including waterborne resins, solventborne resins, urethane resins and additives; powder coating resins; and amino crosslinkers.

Just two years ago, that unit accounted for more than 40 per cent of Cytec's sales.

Cytec's formal announcement of its longrumoured exit from Coating Resins came just 10 days after the company signed the \$105 million PSA deal with German adhesives maker Henkel AG & Co.

Sansin wins NRHA's Whole Package Award for its innovative wood finishes and designs

The Sansin Corporation has received the North American Retail Hardware Association's (NRHA) Best of Show top honour, the Whole Package

GRACO

Award. The Whole Package award, given at this year's National Hardware Show in Las Vegas, honours Sansin's innovation in merchandising design for its Sansin Wood Care Center and Sansin Stain Station.

Sansin's merchandising entry was reviewed by a panel of judges who were looking for attentiongrabbing merchandising displays that used attractive design, demonstrated new ideas and techniques, and presented information in an efficient, economical and effective way. Judges who reviewed Sansin's entry described the Wood Care Center as, "A good, clean, upscale presentation," and also said, "This complete display certainly will attract attention."

"We are honoured to receive this award from the NRHA. We recognized a need to display wood care products in a way that better captures the diversity in wood species, sizes and surfaces," said Sjoerd Bos, vice president of Sansin."We are finding that dealers can better prepare, explain and sell wood care with our Wood Care Center and Stain Station."

Headquartered in Ontario, Canada, Sansin has dealer locations across Canada and in the United States.

Ferguson Chemical Innovation Adds New Suppliers To Our Product Portfolio Ferguson Chemical Innovation (FCI) is pleased to announce the addition of three new product lines to Canadian customers:

Münzing is a privately held German based company with over 180 years' experience offering innovative products around the globe. Münzing is a technology driven company with established manufacturing, R&D and technical service centers in Europe, the Americas and Asia. Their philosophy is to create value for customers through technical projects and tailor-made solutions. FCI will be distributing Münzing's additive line including defoamers, wetting agents and rheology modifiers for the coatings, adhesive, graphic arts and construction markets. www.munzing.com.

Synthomer is one of the world's major suppliers of latices and speciality emulsion polymers for the coatings, sealants, construction, textiles and paper markets. The company has its headquarters in Harlow, UK and provides customer focused services from operational centres world-wide. FCI will be representing Synthomer's performance and functional polymer including SBR, NBR, CR, and natural rubber latexes; vinyl dispersions, polyvinyl acetate and alcohols, and liquid polybutadienes. www.synthomer.com.

Tiangang Specialty Additives is a world-leading manufacturer of light stabilizers and UVabsorbers. With two state-of-the-art plants located in Beijing, China, Liangang has grown the company over the last 20 years to create a highly effective and cost-efficient product offering which is very well established throughout Asia and Europe. www.bjtiangang.com. At Ferguson Chemical Innovation, we are constantly striving to meet the changing market demands and industry challenges to support local manufacturers. We strive to exceed our customers' expectations and look forward to introducing more innovative products from world-leading suppliers to the Canadian Market.







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Combining synergies: Mac Process and Schenck AccuRate growing together

Mac Process, North America's largest supplier of design/build pneumatic conveying and air filtration systems, and Schenck AccuRate, a leader in the manufacture and supply of best-in-class dry material feeders and weighing technologies, announced they will officially join forces as one provider in the marketplace. Both companies are part of the global Schenck Process Group and will be bringing together their synergies going forward on the North American market under the name Schenck Process North America, Inc. In working together, the strengths of both companies will be brought together under one roof, enabling them to strengthen market position and generate a high level of additional benefit for customers.

This includes integrated sales teams focused on Light (chemical, food, pharmaceutical and plastics industries) and Heavy (building materials, cement, steel, N-F metal industries) industry segments; manufacturing capability and Lean processes.

Effective immediately, Jay Brown will direct the combined business as President and CEO and Dirk Maroske will assume the new role of Chief Operating Officer (COO). Schenck Process North America, Inc. is due to be launched officially on January 1, 2013. The well-established names in the industry – Mac and AccuRate – will remain as brand names. Existing operations in Whitewater, WI; Kansas City, MO; Sabetha, KS; Houston, TX; and Milford, OH will remain largely unchanged. *www.sarinc.com www.macprocessinc.com*

Brenntag Specialties, Inc. announces dedication of a new construction applications laboratory

Brenntag Specialties, Inc. (BSI), a premier specialty chemical distributor to the Construction Market is pleased to announce the dedication of a new construction applications laboratory in Phoenix, Arizona. Barbara Penunuri, Technical Manager for the Construction Market will oversee this new facility, building on BSI's technical support capability in this focus market. BSI has significant product development and applications knowledge, as well as formulating experience in the Construction Market. This strong technical interface will further advance BSI's supplier standing and bring added value to customers.

Primary construction applications laboratory capabilities include: materials recommendations, application assistance, formulation advice, process advice, starting point formulas, comparative analysis and key parameter testing. studies, videos and downloadable photographs and a map-based distributor locator. Launching the new graco.com in the Americas is just the first phase of this project; phase two includes the launch of the website around the world with more than 20 additional languages later this year.

Pricing Updates

Troy Announces Price Increase for Micropel® OBPA Products

Troy Corporation announced an increase in prices of all Micropel OBPA (oxybisphenoxarsine) antimicrobial products by up to 15 per cent effective June 15, 2012, or as contracts allow. This price increase is necessary due to escalation in the cost of raw materials, energy, labor, packaging, transportation, and worldwide regulatory compliance according to the company.

Customers interested in learning more about the price increase should contact their local Troy Micropel sales representative.

0xea

Oxea is increasing list and off-list prices on several products.

Effective September 1, 2012, or as contracts allow, the company increased the price of 2-ethylhexanoic acid in the United States, Canada, and Mexico by \$0.08/lb. Oxea increased off-list prices effective September 15, 2012, or as contracts allow in the United States, Canada, and Mexico, on propanol by \$0.05/lb (list price, Zone 1: \$1.45/lb). Customers should contact their Oxea sales representative for more information.

People

Jim Edwards Retires

Jim Edwards, Director of Manufacturing and Distribution for Home Hardware's Beauti-Tone Paint and Home Products division, is retiring after 50 years in the paint business. Edwards spent the past 13 of those years at Home Hardware following senior manufacturing positions most notably at Cloverdale and Sico facilities.



Dale Constantinoff, CPCA Chairman, presents the Statesman Award to Jim Edwards, with Darrin Noble, Home Hardware, at the recent CPCA Conference in Vancouver.

Working with General Manager Doug Thiemann (retired 2007), Edwards is credited with the development of the innovative fully automated batch making system for waterborne products. During Jim's tenure, latex paint production capacity was doubled at the Burford, ON, based facility. His contributions are deeply appreciated by Vice President and General Manager Darrin Noble, and the staff of Beauti-Tone.

Succeeding Jim is Russel Banks, a senior manufacturing manager who brings a strong track record of managing and upstarting large

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Graco Announces Launch of New Website

Graco Inc., a global manufacturer of fluid handling equipment, has announced the launch of a new and much anticipated website at www.graco.com. The new design will better meet the needs of Graco customers and website visitors by making the site more functional, intuitive and appealing. The new site is being launched for North, Central and South America and includes a corporate overview, investor relations and employment information, detailed product marketing and support information, resources such as manuals, case

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IN THE NEWS

production facilities both locally and abroad. Russ is warmly welcomed into the Home Hardware family.

Jim Edwards recently received the CPCA Industry Statesman award at this year's CPCA Conference in Vancouver, BC.

New at CanLak



CanLak, a Canadian based and Canadian owned company specializing in the development, manufacturing and distribution of Industrial Wood Coatings is very pleased to announce that Eric Bertelsen as joined its team as the new Business Development Manager.

Bringing with him extensive industrial coatings experience along with excellent market knowledge, he will contribute towards our continued efforts to improve our customer service and will further enhance our commitment to aggressively develop our Industrial Wood Coatings business. Bertelsen's addition to the CanLak team of professionals will be a strong contribution towards the achievement of objectives.

CanLak will also continue to be actively seeking experienced coatings professionals to fulfill several other open positions within the organisation.

Bertelesen can be reached at the Toronto office.

Matt Docherty Joins Hero Products Group

Steve Balmer, President and COO of HERO Products Group, a division of I.C.T.C. Holdings Corporation ("I.C.T.C.") is pleased to announce the appointment of Matt Docherty as Vice President of Sales, North America. Matt provides HERO with over 25 years of industry sales management experience. Matt's proven track record, along with his strong customer relationships, will assist in delivering HERO's message of quality, service and after sales support. His efforts will be focused on generating new sales within HERO's existing customer base as well as establishing new customer relationships. HERO's growth over the past years has created the need to attract quality individuals that can guide HERO to the next level.

HERO is the fastest growing POS equipment provider to the decorative paint and coatings industry globally. Established in 1969, HERO has its headquarters located in Vancouver, BC, Canada. HERO is a global supplier of POS colorant dispensing and mixing equipment, including in-plant and in-can custom tinting systems. HERO has their offices and manufacturing located in:Turin Italy, Mumbai India, Sao Paulo Brazil and Guangzhou China.

Ferguson Chemical Innovation Expands Its Canadian Sales Force in the Coatings, Adhesive, And Sealants Market

Ferguson Chemical Innovation (FCI) hires Michael Hulme as the new Technical Sales Representative for our Coatings, Adhesives, and Sealants (CAS) business line.

Michael joins FCI with a wealth of experience from multiple industrial sectors relating coatings technology. His career began in product development focused on pigment dispersions for coatings and graphic arts (Johnson Mathey and Canadian Fine Color). He then expanded his career to sales working both in chemical distribution (Univar and Brenntag) as well as finished coating manufacturers (Sico Industrial). As the former president of the Ontario Paint Association (2005), Michael is looking forward to connecting with former relation-



ships and expanding the sales of FCI's product line in Canada.

FCI is confident that Michael's experience combined with his ability to create strong relationships will allow him to succeed in his new role.

Dynapower Company Names Jason McGahey Sales Manager for Industrial Systems

Dynapower Company, the world's leading manufacturer of standard and custom power conversion equipment, has named Jason McGahey Sales Manager for Industrial Systems.

Dynapower produces power supplies for a wide range of applications including plating, anodizing, battery manufacturing and steel processing. McGahey will manage the global sales and marketing efforts of Dynapower 's industrial products & services to end users & OEM Capital Equipment accounts. McGahey, has worked for Dynapower for 14 years in a variety of roles, most recently in a Sales Engineer capacity serving similar markets. He has a background in Mechanical Engineering and Communications.

"Jason's extensive sales & service experience and established key relationships in the industrial marketplace will be key assets to his future success in his expanded role." said Adam Knudsen, COO Dynapower Company."We are pleased to have Jason's leadership facilitate our global product and market growth initiatives."

New at AkzoNobel

Paul Macko joins AkzoNobel as General Manager, Wood Finishes and Adhesives Canada. Macko is located at the Port Hope, ON, site.

Macko joins AkzoNobel with more than 30

years of experience in the coatings and chemicals industries. Paul earned a bachelor's degree in chemistry from the University of Western Ontario (London) and attended the Ivey Business School. During his career, he has



held positions on the Boards of Directors with both the Canadian Paint and Coatings Association and the Canadian Association of Chemical Distributors.

DuPont Announces New Powder Coatings North America Sales Manager

DuPont Industrial Coating Solutions announces the assignment of Ronald W. Hull as the new DuPont Powder Coatings North America sales manager, effective June 1, 2012. Hull is currently

the global business manager, Advanced Interlayers, DuPont Packaging & Industrial Polymers. He has been a part of the DuPont organization for 21 years, holding numerous management positions in Sales, Marketing, Product Development, Operations,



Engineering and Six Sigma. In his new role, he will manage the powder and industrial e-coat sales activities in the United States and Canada. Hull will relocate to the Houston area and report to David J. Lazzeri, North American Powder Coatings business director.

DuPont Powder Coatings is one of the world's leading suppliers of technologically sophisticated powder coatings systems.

Maja Brandes Appointed Global Product Line Manager by Enthone

Maja Brandes has been appointed Global Product Line Manager, Plating on Plastics and Decorative Base Metals (POP/DBM) by Enthone. Brandes will be responsible for the management, development, and strategic marketing of Enthone's industry leading POP/DPM product line.

Specifically, Brandes will lead the global business and product development teams to ensure voice of customer is well understood and incorporated into Enthone's POP / DBM product portfolio of new and emerging technologies. Working closely with the company's regional marketing, sales, and research & development teams, Brandes' primary objective is to create and enhance customer value.

Brandes brings over twenty years of sales,

marketing, and research and development experience to Enthone customers. She is fluent in Ger-

man, English, Russian and Polish.



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CPCA CORNER with Gary LeRoux



Below is a small sample of information that is provided to CPCA members throughout the course of the past several months via the twice-monthly Regulatory News and the monthly What's New Newsletter. All information provided via these informative products are archived on CPCA's Members Only section of the website. CPCA's new website was recently relaunched with enhanced programs and services as well as new information for stakeholders in the paint and coatings sector. Manufacturers, suppliers and distributors continue to benefit from the programs and services provided by CPCA.

CPCA Leads the Way on a Non-Regulatory Approach for MEKO

CPCA continues as the leading voice for the paint and coatings sector in Canada on a host of issues impacting manufacturers, suppliers and distributors in the industry. Once again the Federal Government invited CPCA's Paint and Coatings Working Group to an exclusive pre-consultation meeting for the paint and coatings sector on July 19th for Batch 7 MEKO. This consultation addressed the proposal for a first ever 'code of practice' now being considered by Health Canada, which will be posted for wider consultation to other stakeholders with an interest in this issue.

The CPCA Paint and Coatings Working Group assessed the proposed non-mandatory risk management instrument and formulated comprehensive and specific recommendations for a better way forward. CPCA submitted the PCWG comments on behalf of the paint and coatings industry to Environment Canada and Health Canada on August 10th. The federal Government plans to publish the proposed Code of Practice at the end of 2012 followed by a multi-stakeholder consultation. At that time CPCA will once again have an opportunity to comment on behalf of the industry.

It should be noted that while Codes of Practice have been used for producers in the past this is the first time ever for a Code of Practice related to a consumer product like paint. Once the larger stakeholder industry has been consulted, the code would then be finalized in Canada Gazette I in 2013. The new labelling requirements contained in the code will likely be phased in over a 3-year period after its approval.

This is a clear case of a non-mandatory risk management instrument being used in lieu of a regulation. This approach is evidence that the federal government is serious about implementing the recommendations of the recently tabled report of the Red Tape Reduction Commission last January. In cases were there is negligible impact from the use of a substance like MEKO other nonregulatory instruments can be used to reduce the costs to both industry and government. This groundbreaking effort may lead the way for other products to be considered in a similar light.

CPCA Takes Action to Ensure UN & 49 CFR Limited Quantity Markings can be

mally published. CPCA will notify all industry stakeholders as to when Amendment 12 is about to published.

CPCA Board Provides Direction on Post-Consumer Paint Recycling Challenges in Ontario

A number of CPCA members, who are also stewards in the post-consumer paint-recycling program in Ontario, have expressed discontent with respect to the program operation's deficit recovery fees under the Ministry of Environment. CPCA is now working on a strategy to resolve the issues associated with the paint-recycling program in Ontario. While there is now a paint-recycling program in every Province, no other Province in Canada has experienced the current strains placed on the paint industry in Ontario. The solution must include a better risk mitigation approach, transparency, an appropriate metric for an alternative fee-setting approach - visible or not - and greater control of program operation costs that to date exceeds that of every other Provincial program. CPCA is exploring ways in which it can move forward to provide parts or all of this solution for the current stewards of the program in Ontario.

CPCA has obtained a legal opinion from Osler, Hoskin and Harcourt on the legality of the unilateral decision by the Ministry of Environment in February of this year. CPCA is now engaged in a cost-benefit analysis of the Ontario stewardship program to determine whether or not the creation of its own Industry Stewardship Program (ISP), permitted under the current regulations, is a better way forward. Should an ISP be created for the paint category of the MHSW program, stewards will still fully comply with the regulations and ensure environmental stewardship is a top priority for industry. Once created, the ISP would remain under WDO/MOE's oversight as stipulated in the Waste Diversion Act.

CPCA is Successful in Having Member's Input Reflected in Draft Technical Background Document for the Aromatic Azo- and Benzidine- based Substance Grouping The webpage for the Aromatic Azo- and Benzidine-based Substances was recently updated by Health Canada with the posting of the draft technical background document on July 13, 2012. It also includes information on the more detailed schedule for publication of screening assessment reports, as well as the meeting summary report on the multi-stakeholder technical consultation on the proposed subgrouping approach. CPCA engaged in early consultations with Environment Canada and Health Canada via the Paint and Coatings Working Group and was successful in having the majority of the Association's comments reflected in the Draft Technical Background Document. More specific technical comments on the Structurally Related Groups will be reflected in the upcoming screening assessments at a later date.

The Government of Canada is soliciting comments on this document during a 60-day public comment period, ending September 12, 2012. The comments received will be considered in the Final Technical Background Document, anticipated for release in winter 2012/2013. CPCA continues to monitor this situation as it wends its way through the regulatory system.

CPCA Reminds Industry of the Fast Approaching VOC Stop-Selling Deadline for 46 Categories of Architectural Paint Products

CPCA have urged members to reinforce their plans with distributors and retailers to ensure stock depletion and to avoid massive returns of 46 categories of coatings listed in the VOC Concentration Limits for Architectural Coatings Regulations. The 'stop sales' and 'offer for sales' of non-compliant products are slated for September 10, 2012. Environment Canada (EC) and CPCA have both issued a leaflet and memorandum to raise awareness of these obligations for the industry in Canada. Non-members must also comply with these regulations.

CPCA members, as well as non-members in the coatings industry, should be prepared for a stop-manufacturing and stop-importing deadline for six other categories of products contained in the VOC Concentration Limits for Architectural Coatings Regulations. These requirements also come into effect on September 9, 2012 and will give two additional years to sell all inventory stocks (September 10, 2014). The six categories are: Bituminous roof primer, any other bituminous roof coating, form release compound, floor enamel, interior wiping stain, clear or semi-transparent exterior wood stain. For an additional category "recycled coatings", the stop manufacturing and importing deadline will come into effect on September 9, 2014.

CPCA Asked to Comment on OECD's

Chemicals in Products Program The Third Session of the International Conference on Chemicals Management (ICCM3) will be held in

Nairobi, from September 17-21, 2012. This is part the OECD's Strategic Approach to International Chemicals Management for increased international cooperation on chemicals management. At the session, the Conference (ICCM3) will be asked to consider, and possibly adopt, the draft recommendations to establish a multi-stakeholder process to develop a proposal for an international, non-legally binding Chemicals in Products Programme under SAICM aimed at enhancing the availability of information on chemicals in products throughout the supply chain. Currently Environment Canada has a Memorandum of Understanding with both the European Union and the United States to share information with respect to chemical assessments in the respective countries. A progress report on the chemicals in products project has been provided to members of CPCA's Paint and Coatings Working Group for review and formal comments will be provided to Environment Canada for inclusion in the federal government's formal response.

CPCA Members Provided an Opportunity to Provide Input on Polyesters of Low Concern (PLCs) to OECD

The OECD Clearing House on New Chemicals has decided that there would be value in developing a common protocol for expanding the Polyester List currently in use. The U.S., Canada, and Australia have each had legislation that includes a list of monomers/reactants accepted as safe for use in the manufacture of polyesters. Now, the question is how to expand the Polyester List of accepted monomers and reactants; to add other monomers/reactants that are considered equally safe; and to make it easier for regulators and industry 'notifiers' to proceed with new polyesters. A process has been developed to nominate substances (via industry associations) to NICNAS by October 30, 2012. Through this nomination process, Australia and Canada have the most to gain, as our regulatory schemes are quite similar with PLCs enjoying a significant reduction in requlatory requirements (and filing fees) over other polymers. CPCA members are now in the process of nominating substances in this exercise.

Gary LeRoux is the president of the Canadian Paint and Coatings Association.



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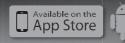
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Transport Canada has not yet formally adopted the Limited Quantity (LQ) marks and for this reason, an Equivalency Certificate (SU 10832) was sought and obtained by CPCA on August 24, 2011 with a validity period of 2 years. Transport Canada (TC) indicated at that time that Amendment 12 should eventually be published to align with the UN Model Regulation and 49 CFR. In its Summer 2012 communication, Transport Canada mentions that, even though Section 1.17 of the Transportation of Dangerous Goods (TDG) Act doesn't allow for the use of these new marks, they will accept them because they are updating the TDG to allow future use. This Canada Gazette publication is not anticipated before the Fall of 2012.

CPCA members can continue to use the CPCA Equivalency Certificate until Amendment 12 is for-

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Calendar of Industry Events

October 9-11, 2012:	Coating 2012, St. Louis, MO, www.coating-show.com
October 12-14, 2012:	OPCA Annual Conference, Langdon Hall Country House Hotel and Spa, Cambridge, ON, www.ontpca.org
October 15-18, 2012:	21st Annual International Anodizing Conference Part of Aluminum Week, Renaissance Chicago Downtown, Chicago, Illinois, <i>www.aacconf.org</i>
October 22-23, 2012:	Wood Tech Summit, at the University of British Columbia's (UBC) Robson Square campus in downtown Vancouver. <i>WoodTechSummit.com</i> .
October 28-31, 2012:	NACE Northern Area Eastern Conference, Fairmont Royal York, Toronto, ON, www.nace.org
November 12-14, 2012:	FABTECH, Las Vegas Convention Center, Las Vegas, NV, www.sme.org
November 13, 2012:	CASF Environmental Forum, 8:30-4:30 pm, Hilton Garden Inn, Toronto, www.casf-forum.ca
November 14, 2012:	Oil & Colour Chemists Organization of Ontario (OCCO) Fall Mini Symposium, Stage West Hotel, Mississauga, ON, <i>www.occacanada.org</i>
December, 2012:	Joint Xmas lunch with TOSCOT, TBA, www.occacanada.org
February 7, 2013:	OCCO's Winter- Mini Symposium, Stage West Hotel, Mississauga, ON, www.occacanada.org

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Association News



Above: TOSCOT Last Meeting-.jpg Cutline: Jake Jevric and Dave Saucier sign the corporate dissolution documents at the last |official Toronto Society of Coatings Technology (TOSCOT) meeting, necessary to transfer assets to the Canadian Paint and Coatings Association (CPCA). The memorandum of the agreement stipulates that TOSCOT will be the "education arm" of the CPCA continuing their coatings courses and their scholarships.

Eurocoat is returning to Barcelona, and setting its sights even higher! Riding on last year's success in Paris, Eurocoat is opening its doors for 3 days of trading at the Palau de Congressos in Barcelona, October 2-4, 2012.

Now in its 35th year, Eurocoat has become a historic event in the coating industry, bringing together manufacturers and distributors of paint, printing inks, varnish, glue and adhesives. While initially focused on markets in southern Europe and North Africa, Eurocoat now plays host to a growing number of international stakeholders in the coating industry in China, Japan, Iran and more broadly in Middle East countries.

The trade show is therefore open to emerging markets, who can come to meet their suppliers, while also retaining key stakeholders from mature markets.



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Valspar if it matters, we're on it." Eurocoat is organised with the cooperation and support of Spanish, Italian and French(1) professional associations, and combines a professional trade show with a technical & scientific congress in one place, making it the ideal platform for business and trade, science and industry. Eurocoat's strength lies in its format: a highquality event on a human scale, where the local offering meets the European market. At each Eurocoat event, 40% of its visitors are new, which is extremely positive in this competitive sector. *www.eurocoat-expo.com*

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CPCA Conference Day 1



Darrin Noble, Home Hardware and Tim Vogel, Cloverdale Paint.

Photos By Pete Wilkinso

Howard Kennedy, Dominion Colour and Ed Thompson, L.V. Lomas.



Roula Hanna, Kronos Canada and Basilio Nucara, Brenntag Canada.



Jake Jevric, L.V. Lomas and Andy Doyle, American Coating Association.

CPCA Conference Day 2

Association News

Canadian Paint and Coatings Association Held Annual Conference in Vancouver

The Canadian Paint and Coatings Association (CPCA) held its 99th Annual Conference and AGM at the Marriott Pinnacle Hotel in Vancouver from September 15-17, 2012. The theme of this year's conference is United for a Sustainable Industry.

"Since my time as Chair I have been very impressed with the way the industry comes together to advance common issues of importance for all and the conference is one time we should all reflect on how far we have come and what challenges may lie ahead," said Dale Constantinoff, President and CEO of General Paint Corporation and this year's Chair. The Association's annual conference provides an excellent opportunity for the Board, Technical Committees and all members to sit down and debate the relevant issues for our industry. Constantinoff goes on to say, "If we don't look after the sustainability of our sector from both an economic and environmental perspective, who will?" This year's conference had the most credible economic forecaster for the sector, Orr & Boss, addressing the status of the industry now and in the foreseeable future. The conference dealt with important regulatory issues in what is a heavily regulated sector of the economy at all three levels of government. There was ample opportunity for the industry to have its say from the viewpoint of suppliers, manufacturers and retailers. There were industry awards presented at the customary Chair's dinner on Sunday, September 16 as well as an opportunity for members and non-members alike to socialize during the conference. CFCM magazine was there.

Photos by Pete Wilkinson

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Association News

Canadian Paint and Coatings Association Held Annual Conference in Vancouver

CPCA Conference Day 2



Sharon Kelly, KelCoatings with Jean-Marc Pigeon and Jean-Baptiste Moranta, Inortech Chimie.



Ron Nakamura, PPG and Joe Sousa, Colwell Canada.



Dori-Ann Steinberg and Dick Seville, Buccaneer Canada.



Yvon Savaria, retired AkzoNobel receives Statesmanship Award from CPCA Chairman Dale Constantinoff, General Paint.



Susan Peterson, retired from AkzoNobel, receives Statesmanship Award from Dale Constantinoff.



Dale Constantinoff, President of General Paint, is presented an acknowledgement of General Paint's 100th Anniversary by CPCA President Gary LeRoux. *contin*





Dale Constantinoff presents Darrin Noble, Home Hardware, with the Roy Kennedy Award.

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 $10\,$ canadian finishing & coating manufacturing september/october 2012



Jan Marie Balmat from Silberline.



Good attendance at Dempsey's Graphic Arts Seminar in Toronto.



Dempsey office staff, from left to right, Roxanne Cardinal, Marion Harford, Randy Mulrooney.

Association News

Dempsey Seminars, June, 2012, A Success

Dempsey Corporation held its Graphic Arts Seminars in Toronto and Montreal in June.

Dempsey's Marc Gagnon says Dempsey expects approx 25 for the ink seminars and more like 60 or 70 in coatings. The seminars this year focused on ink so Toronto had approx 16 attendees and 17 in Montreal.

Speaker Kevin Milks from BASF spoke about Energy Cure & Solvent Inks as well as BASF Polymers for Solvent and Waterbased ink.

BYK Additive speaker John Du handled several topics including Surface Additive Theory; Wax Theory; Defoamers; and Pigment Dispersion.

Also from BYK Additives, Miguel Dones covered Surface Additive Recommendations; Wax Recommendations; Defoamers Recommendations and Pigment Dispersion Recommendations. Jan Marie Balmat from Silberline spoke about Aluminum for Ink.

Lunch was served and at the end door prizes were rewarded which included a lounge chair and ipad. The draw for the ipad also included Montreal attendees. The winning ticket was Guy Fleury from Ultra Ink in Montreal.



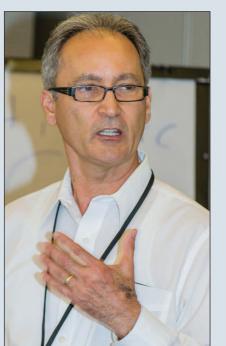
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Kevin Milks from BASF.



John Du from BYK.





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SEPTEMBER/OCTOBER 2012 CANADIAN FINISHING & COATING MANUFACTURING 11

Photos by Sandy Anderson







Left: Brett Appleby loads stained panels into the Venjakob sander.

Appleby and Oldershaw are all co-owners and started the company together.

They moved to a new 7000 sq ft facility on Truman Road in January 2012

Above: Brett Appleby (left) and Cameron Oldershaw (right) examine the job.

and installed a sander/denibber and flatline finishing machine and spray booth. This new location has plenty of room for expansion.







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System offers easy maintenance. Inset: North shore Finishes employee Cordell Parker applies custom staining in the paint booth.

decision." Appleby adds, "Venjakob seemed to have the right fit for us."

"They have great tech support," says Oldershaw.

Oldershaw explains that the finishes they use depend on customer specs. The Venjakob machine is equipped with Kremlin Guns and the manual spray booth has Graco guns.

In the flatline machine, mostly Chemcraft product is used. The Devibis GTI waterborne stain is used in the machine currently.

North Shore Finishes is having a successful first year in their new facility. They are visiting wood trade shows with a booth showcasing what they can do and are hopeful for the future.

www.northshorefinishes.ca

Their main client, a local manufacturer of kitchens, are "thrilled" with the new facility and new production line. Appleby says their customers "are more than pleased" with their new expansion and new facility.

North Shore Finishes got its name from originally being located on the north shore of Kempenfelt Bay in Barrie. Although it no longer is, the name stayed. The company is still "north" being located on the north side of the huge industrial space at their new facility.

The facility is equipped for large volume wood finishing production. Standard applications include oil and spirit based stains and precatalysed lacquer (spray application) for opaque, translucent and transparent coatings.

Appleby is a finisher and takes care of the flatline finishing line. Oldershaw, also a finisher takes care of the custom and exterior doors and Rattray is the administrator.

Sales Representative for Venjakob North America, Andrew Scott Taggart dealt with North Shore Finishes and says, "After talking to Ryan on phone we met Ryan at Becker Acroma to show him a machine in operation. We then visited his old facility and discussed with him his current plans for finishing, then asked him where he would like to be in two years." Andrew continues, "We then selected our medium sized spray Ven Comfort machine. Thus giving him lots of room for future growth, which could include some additional handling and drying equipment." He adds, "North Shore is a very friendly and trustworthy company with great personnel that make you feel comfortable from the very beginning."



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Appleby explains that they did months of "homework" when looking for a flatline finishing machine and that after dealing with Venjakob, "they made it an easy

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Registration Schedule

Sunday, October 7: 8:00 AM - 4:00 PM Monday, October 8: 7:30 AM - 6:00 PM Tuesday, October 9: 7:30 AM - 5:30 PM Wednesday, October 10: 7:30 AM - 5:30 PM Thursday, October 11: 7:30 AM - 1:00 PM

Exhibition Schedule

Tuesday, October 9: 12:00 PM - 5:00 PM Wednesday, October 10: 10:00 AM - 5:00 PM Thursday, October 11: 10:00 AM - 2:00 PM



Technical Conference Schedule

Tuesday, October 9: 8:00 AM - 12:00 PM Wednesday, October 10: 8:00 AM - 3:00 PM Thursday, October 11: 8:00 AM - 11:00 AM

Markets Represented

• Aerospace • Agricultural & Construction • Appliance • Architectural • Automotive & Transportation • Coatings & Linings • Custom Coater • Electrical • Energy Generation & Transmission • Functional • Furniture • General Metals • HVAC • Lawn & Garden • Marine/Maritime • Military/Defense • Surface Preparation

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COATING Auction

The COATING Auction will take place inside the exhibition hall on Tuesday, October 9. This high energy event will allow you to create connections, gives attendees buying power opportunity, and exhibitors the ability to champion their company, products and services throughout the interaction. The live auction will take place on the show floor during the exhibition Happy Hour from 4:30 PM to 6:30 PM.

Product Showcase

The Product Showcase will display featured products and services at the only event dedicated 100 per cent to liquid and powder coatings. Those products launched in the last 12 months will be eligible for the Product Innovations Award, which recognizes the top innovational product of the year.

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Powder Coating Institute

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October 8-10, 2013, America's Center, St. Louis, MO

Exhibitor List available at www.coating-show.com

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continued from front cover

ples behind a fast colour change: Application Efficiency + Recovery Efficiency = System Efficiency. Under this formula, fast color change begins with allowing the least amount of powder in process through the colour change system during operation at any given point in time."

Binder continues, "Application Efficiency means, for example, that guns are not spraying if there is no part in front of them. In addition, the flow settings are set at their optimum level, coating parts with minimal over-spray. This results in less powder on the floor and on the booth walls that would need cleaning during a colour change. Additionally, optimizing canopy material and utilizing a floor blowoff device also results in less powder on the booth walls and floor."

"Recovery Efficiency," says Binder, "is defined as quickly collecting powder overspray and transferring it out of the cyclone and back to the powder feed source, ensuring that recovery efficiency is as high as possible. If done properly, cyclone efficiency rates should be in the 95 to 97 percentile range."

"Optimizing Application Efficiency and Recovery Efficiency to minimize powder in process – and the amount of powder that requires cleaning during colour change – makes it possible to achieve the fastest colour change."

AS LITTLE DOWNTIME AS POSSIBLE

"Customers are asking for as much uptime and as little down-time as possible essentially fast colour change," says Binder of Nordson. "Additionally, they are asking that the fast colour change be contamination free. Fast colour change is not enough, it must also be thorough." Binder adds, "It must be easy for the operator to see all surfaces that require cleaning. This also means that the powder delivery and transfer lines, spray booth canopy, cyclone, feed center and any high pressure air device internal and external gun cleaning, should be designed to remove powder from any surface as quickly and efficiently as possible."

THE SOLUTIONS

At EXEL North America, Didier Brotons, Sames General Director of industrial sales says, "The purpose of a Quick Colour Change Booth is to be able to paint several colours within the same days avoiding as much as possible loss in production and powder." Brotons adds, "The average time for a colour change is 10 to 12 minutes. It is clear that this technology, in use all over the world offers a lot of advantages, but could not be considered as the unique and best solution among the alternatives, although some manufacturers are promoting this unique solution for colour change." technology.





oped a new concept for quick colour change avoiding the losses (such as in production time and hole in the conveyor during cleanings) and it works well and less costly."

Val Barone of Powder Coating Supply Inc., Hamilton, ON says, "If your decision is to reclaim and do a quick colour change then there are a few ways to approach it." Barone adds, "The first way is to use a quick change booth that can get vour colour change times down to as low as five minutes. This is done with a double walled PVC booth, a paint kitchen and a large mono cyclone. This is ideal if your runs are short and a five to 10 minute colour change is acceptable. If five minutes is still too long and you still need to reclaim the oversprayed powder you could then look at a two-booth system with on and off line capabilities. You would only have to leave a short gap to move one booth off and the other on. This would allow you to change colours in as little as 2 minutes."

Barone says, "The problem with the two-booth system is that the footprint is larger than a quick colour change booth."

"With very short runs over the last four years it is hard to justify these booths and a lot of our customers opted to just spray to waste," says Barone. "With the tide turning in manufacturing and a lot of it coming back to North America the quick colour change booths are gaining momentum." Powder Coating Supply Inc. will soon have a system that will change colours in seconds rather

than minutes. They hope to have it out by the end of 2012.

Binder says, "Since customers are asking for fast colour changes of 5 to 10 minutes and the ability to reclaim powder – and even 20 second colour changes without reclaiming the powder – Nordson has a broad range of equipment and system solutions to meet every customer's needs. Both the Colormax E and Colormax 3 (Cubed) offer customers full engineered systems capability and the ability to change colours and recover powder in anywhere from 5-15 minutes. Nordson's Lean Cell System with Prodigy HDLV dense phase delivery and Prodigy Color-On-Demand allows customers to change colours in 20 seconds without reclaiming over-sprayed powder. Nordson has the ability to tailor a system to fit any customer's needs in order to provide fast, contamination free colour change, saving money by reducing downtime and increasing productivity by increasing up-time.

SPRAY-TO-WASTE VERSUS SPRAY-TO-RECLAIM

Todd Wilken, Training and Demonstration Coordinator for Wagner Systems Inc. explains, "There are two types of quick colour change options that are available, spray to waste and spray to reclaim."

Wilken says, "The spray to waste colour change option is the most simplistic and cost effective option." The Wagner Prima ColorSelect system is an example of this.





Brotons says, "We have recently devel-

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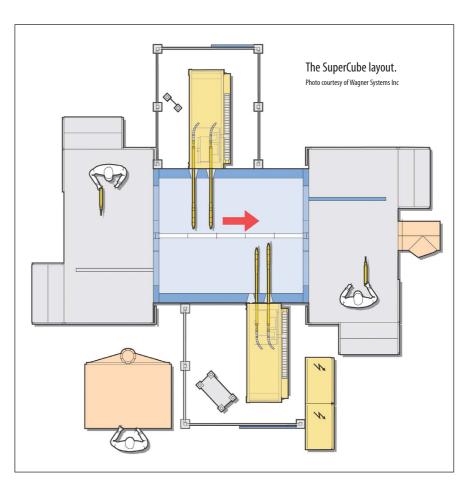
INDUSTRIAL FINISHING: POWDER COATING QUICK COLOUR CHANGE



"The colour select system consists of application equipment (gun, controller), gun and hose purging system and up to ten dedicated powder hoppers," says Wilkin. "The principle behind this quick colour change system is the dedicated hoppers that do not need to be emptied and cleaned after each production run. Upon completing a production run the operator switches the system to the cleaning mode. Ten to twenty quick bursts of The Supercenter quick colour change system. Photo courtesy of Wagner Systems Inc

compressed air clean the short run of hose from the colour select system as well as the inside of the gun. This colour change is completed in approximately 30 seconds. Once the cleaning has completed the operator simply turns the selector to the next colour."

"The spray to reclaim colour change option is a much more costly investment," says Wilken. "This option requires a booth constructed of a special polymer material that powder will not stick to, a cyclone recovery system, a highly advanced powder center with an automatic gun cleaning device, special quick cleaning guns, an external gun blow off system and a peristaltic style transfer





pump to carry the reclaim powder from the cyclone back to the powder center. The colour change procedure is usually carried out by two the three operators who carefully follow a series of steps to ensure the procedure is carried out properly. For the most part the steps are as follows:

- Complete the coating process.
- Activate the colour change sequence via a PLC touch screen.
- The internal gun cleaning is activated automatically.
- Activate the external gun cleaning (this also backs the guns completely out of the booth).
- Use compressed air the blow out the interior of the booth until no evidence of powder remains.
- Clean the peristaltic transfer pump automatically through the powder center PLC.

- Use compressed air to clean the cyclone and cyclone receiver cone.
- Prepare the next colour to be sprayed."

"This colour change procedure generally takes 5 to 15 minutes to complete," continues Wilken. "The principle here is having the smallest amount of powder in the system possible. The automatic gun cleaning system allows the system to be cleaned without having to dismantle each individual pump, hose and gun for cleaning. Historically spray to reclaim colour changes averaged 45 minutes to 2 hours."

Wilken says that "customers that make a very large number of colour changes per shift and have short production runs will opt for the spray to waste option."

"They see that the cost of not recovering the over sprayed powder is much less than the cost of the added down time associated with the spray to reclaim colour change." He adds, "The opposite would be true for customers the chose the spray to reclaim option, long production







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The Color Select. Photo courtesy of Wagner Systems Inc

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runs / fewer colour changes per shift."

Wilken says that their "customers want economical, fast, contamination free colour changes with simple, easy to use controls." He adds, "The Prima ColorSelect system is our spray to waste fast colour change system. Our most popular fast colour change booth system is the SuperTech booth."

Jeffrey Hale, Director, Standard Products Sales & Marketing, Gema Inc. says that, "for the OEM or coating service provider to have the ability to apply one colour of powder and then quickly change to another colour, the key is how quick does quick need to be? Less than 1 hour? Less than 15 minutes? Less than 1 minute?" Hale adds, "The other aspects of 'fast colour change' are whether the powder can be reclaimed for reuse or does it need to be 'spray-to-waste'; and certainly whether the powder is applied manually or automatically, or both must be understood. Regardless, the required solution will depend upon their answers to these and other questions." Hale says customers are asking for flexibility and productivity. "Many customers are dealing with the challenges of juggling colours. For some, the struggle is to determine the frequency of colour change required. In other words, how often they need to change colours versus how often they want to change colours may not be the same," says Hale. "For many companies, the finishing line can be a bottleneck. More colours required

equals more production line downtime to complete the necessary changeover. The response by some companies is to choose to spray-to-waste a colour. This is an easy way to minimize downtime and keep production moving. These companies trade the material waste of powder for the gain of higher productivity. For other companies the cost of material is too great and therefore they need a solution that allows for powder to the recovered and reused. Plus they want the colour changeover time to be as short as possible."

Two of Gema's latest products focused on quick colour change are the OptiColor unit and the OptiCenter Powder Management System.

The OptiColor is designed for those customers choosing to spray-to-waste the powder and apply by using manual powder coating guns. Typically the users have a manual spray operation that uses multiple noppers set up to spray various colours. OptiColor is an easy to use and cost effective solution saving time and money when changing from one colour to another. The OptiColor allows the user to conduct all normal spraying operations, as well as do fast, simple spray gun colour changes from a single location. Working in conjunction with the OptiFlex series manual spray gun, colour changes are performed in a matter of seconds.



production, throughput, and flexibility. The OptiColor is conveniently located at the operator, giving easy access for application adjustments and colour change selection.

The OptiCenter is designed for customers using automatic guns and want the flexibility to reclaim or spray-to-waste the oversprayed powder. Typically these customers are making multiple colour changes in an 8 hour shift. Included in the system are the application controls, the gun mover axis controls and the fresh powder supply. The fully automatic cleaning process reduces colour change times significantly.

The OptiSpeeder II is the heart of the OptiCenter and combines the powder feed and cleaning functions into one compact unit. The OptiSpeeder II's improved fluidization and low maintenance pumps deliver powder to the guns using less compressed air, resulting in a softer powder cloud for improved transfer efficiency.

www.exel-na

During the OptiCenter's automated cleaning, the OptiSpeeder II empties the remaining powder for reuse, and purges the pumps and all of the powder hoses quickly and efficiently. Because the OptiSpeeder II is a completely sealed and closed system – this is a dustless process. The one-button cleaning operation allows one operator to complete a total colour change in 10 minutes or less.

Depending on whether a finisher's needs require the spray-to-waste or the spray-to-reclaim option, equipment manufacturers offer quick colour change solutions.

Editor's Note: Companies who helped with this article can be contacted at: www.exel-na.com www.gemapowdercoating.com www.nordson.com www.powdercoatingsupply.com www.sames.com www.wagnersystemsinc.com



The OptiColor allows production spraying to continue while a hopper colour change is being performed. Fast colour changes in seconds maximize



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North America's largest metal forming, fabricating, welding and finishing event will be held at the Las Vegas Convention Center, Las Vegas, Nevada, November 12-14, 2012. The upcoming event is expected to cover more than 400,000 net square feet and anticipates over 25,000 attendees and 1,100 exhibiting companies. FABTECH provides a convenient 'one stop shop' venue where you can meet with world-class suppliers, see the latest industry products and developments, and find the tools to improve productivity, increase profits and discover new solutions to all of your metal forming, fabricating, welding and finishing needs.

Location

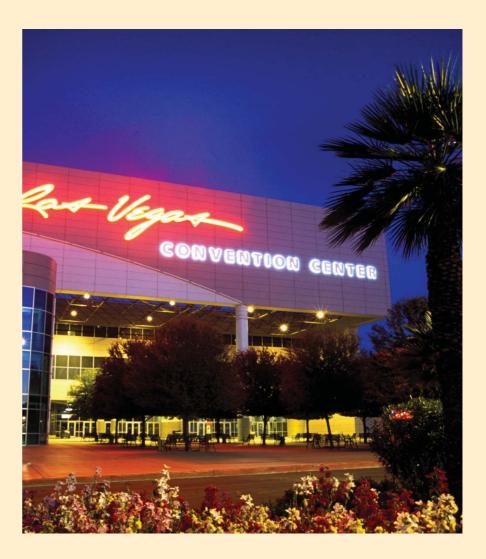
Las Vegas Convention Center 3150 Paradise Rd Las Vegas, NV 89109 Phone: (702) 892-0711 Fax: (702) 892-2824

Show Days/Dates

Monday, November 12, 9:00 am — 6:00 pm Tuesday, November 13, 9:00 am — 5:00 pm Wednesday, November 14, 9:00 am — 4:00 pm

Technology Pavilions:

To guide attendees to products and services easily, the show floor is organized in Pavilions that are





THE ONE EVENT WHERE THE FINISHING INDUSTRY CONNECTS TO DO BUSINESS. FABTECH 2012.

geared toward specific industries and technologies. FABTECH will encompass both Central and North Halls at the Las Vegas Convention Center. The Central Hall houses Pavilions dedicated to Forming & Fabricating, Laser, Metal forming, Tool/Die, Tube & Pipe and Finishing. The North Hall houses Pavilions dedicated to Welding and Thermal Spray.

Session Highlights:

Powder Coating Conversion & Upgrade Case Studies Learn about real-life results from companies that switched from liquid to powder and upgraded their systems to allow for increased production, fast-color-change and improved results. Case studies will include specifics on research into system design & testing, successful installation and results they achieved.

A World of their Own: What's Trending in Coatings?

Learn about sublimated coatings that reproduce natural grain finishes on metal profiles, sheets, MDF, high temperature plastics and 3D accessories. Also reviewed will be green alternatives in architectural coatings that can be applied to extruded aluminum building components, fencing and building accessories. You will also learn about how to prepare your company's coating line to meet the specifications in the growing Agricultural and Construction Equipment (ACE) industries.



Experience the ultimate thrill of FABTECH 2012 – a place where you can see and compare cutting-edge equipment and technology in action. Check out all the new products, network with industry pros and find solutions to work smarter and be more competitive. There's nothing else like it!

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$18\,$ canadian finishing & coating manufacturing $\,$ september/october 2012 $\,$

In just three years, CCAI's FINISHING Pavilion and Conference at FABTECH has become the largest trade show and conference serving the industrial finishing marketplace.

"This is now the destination for those seeking industrial finishing products and services," notes CCAI Executive Director Anne Goyer. "We've come a long way in a short time and are happy to report that CCAI's FINISHING Pavilion has more paint and powder manufacturers; more application equipment suppliers; more systems houses; more pretreatment suppliers and more companies providing auxiliary products and services for finishing than any other show in North America. In fact, CCAI has sold out our show floor space allotment several times and had to add space to meet the demand from exhibitors."

Finishers will have the opportunity to see more live demonstrations and learn about a wide variety of new products for finishing during their visit to FABTECH in Las Vegas from November 12 - 14. Beyond CCAI's expanded FINISHING Pavilion, it also boasts a world-class technical conference, including 38 hours of FIN-ISHING educational sessions. New this year CCAI is offering a "Basics of Powder Coating" (Conceptos Básicos de Pintura en Polvo en Español) session conducted completely in Spanish. Each attendee will receive a copy of CCAI's Spanish Powder Coating Training Manual. Ron Lum of Coral Chemical, CCAI Southern California Chapter president and CCAI National Board of Directors Treasurer, is spearheading the development of the Spanish session. "This is a much needed educational session," Lum states. "There really isn't much in the way of manufacturing educational opportunities conducted in Spanish in the U.S. This session will be appropriate for Spanish-speaking individuals new to powder coating, those operating a powder coating line or those interested in getting into the powder coating business. We are excited to offer this session to the industry."

In addition to Conceptos Básicos de Pintura en Polvo en Español, CCAI's FIN-SIHING Conference offers important information for both finishing newcomers and industry veterans. Highlights include presentations of end user case studies, advancements in coatings & pretreatment technologies, running efficient finishing systems, and much more. All finishing processes will be covered, from powder and liquid coating to electrocoating and porcelain enamel. There are also a series of FREE special events including new product presentation on the show floor, a manufacturer's executive outlook and a post presidential election panel discussion. The only event to showcase the entire manufacturing process from start to finish, FABTECH 2012 will have more than 1,100 exhibitors covering more than 400,000 net square feet of exhibit space, and expects more than 25,000 attendees

from around the globe. For the most upto-date information, and to find exhibitor and conference listings for the entire show, visit www.fabtechexpo.com. Scroll over the "Attendee" tab to view the floor plan, list of exhibitors, show planning tools, and more. Abstracts for all conference sessions can be found under "Education & Events."

2012 FINISHING PAVILION EXHIBITORS

(As of September 13, 2012)

For a complete list of the more than 1,100 exhibitors at FABTECH, visit: www.fabtechexpo.com

ACT Test Panels, LLC **AFC Finishing Systems** Akzo Nobel Coatings, Inc. Alliance Express American Finishing Resources Amiberica, Inc. Anest Iwata USA Anomatic Corp. Arkema, Inc. **Baril Coatings USA** Becca Inc. **Bex Spray Nozzles Big C: Dino-Lite Scopes** Binks, DeVilbiss, Ransburg, BGK Bulk Chemicals, Inc. C.A. Technologies Calvary Industries Inc. **CFCM - Canadian Finishing & Coatings** Manufacturing Magazine **Cardinal Paint & Powder** Carpenter Chemicals, LC **Catalytic Industrial Systems** Chemetall Chemical Coaters Association Int'l. Clean Air Consultants/Filter 1 **Coil World Magazine Col-Met Spray Booths** Combustion & Systems, Inc.

Coral Chemical Co. **Custom Fabricating & Supplies** Daifuku Webb **Decoral System USA DeFelsko** Corporation **Diamond Vogel Paints** DMP Corp. **DuBois Chemicals** DuPont Industrial CoatingSolutions **Duroair Technologies** Durr Ecoclean Dynabrade Inc. Echo Engineering & Production Supplies, Inc. Eisenmann Corp. Elcometer The Electrocoat Association Electro-Steam Generator Corp. ElektroPhysik USA **Enhancement Technologies EPSI Masking Co.** EXEL North America, Inc. Fischer Technology Inc. Fostoria Process Equipment, div. of TPI Corp. Gema General Automatic Transfer Co. General Fabrications Corp. **Global Finishing Solutions LLC** Goff, Inc. Graco Inc. Guspro Inc. Haynncorp. Industrial Finishing Solutions Hubbard-Hall Inc. I.S.T. ECO PURE Inline Sieve Intech Services IntelliFinishing Kaeser Compressors, Inc. KCI America Co. **Keyland Polymer** KMI Systems Inc. George Koch Sons, LLC Kolene Corp. Krautzberger GmbH LDPI, Inc. LPI, Inc. Magic Rack/Production Plus Corp. Midwest Finishing Systems, Inc.

Mighty Hook Inc. MTM Meissner Technik Mullenbach GmbH NIC Industries, Inc. Nordson Corp. Nova Verta USA Osborn Parker Ionics **PKG Equipment Inc.** Pneu-Mech Systems Mfg. LLC **Pollution Control Products Co.** Porcelain Enamel Institute, Inc. **Powder Coating Consultants** Powder Coating Powder Parts, Inc. **PPG Industries** Precious Plate Inc. Pretreatment Equipment Manufacturers Inc. Production Systems, Inc. **Products Finishing Protech Powder Coatings** Rapid Engineering LLC Red-Ray Mfg. Co., Inc. **Reliant Finishing Systems Richards-Wilcox** Rohner Shercon Inc. Sherwin-Williams Co. Southern Systems, Inc. Spray-Tech Steelman Industries, Inc. Strathmore Products **Top Cat Air Tools** Trimac Industrial Systems, LLC TWN Industries, Inc. Uni-Spray Systems Inc. Vitracoat America Vulcan Blast Shot Technology **Vulcan Catalytic Systems** Wagner Industrial Solutions Walther Pilot North America

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FABTECH 2012 CCAI FINISHING CONFERENCE AT-A-GLANCE

MONDAY, NOVEMBER 12, 2012

C10 – Building Blocks of a Powder Coating System

8:00 – 10:00 AM: Building Blocks of a Powder Coating System with Greg Dawson, Nordson Corp., Bill Owens, DuPont Industrial CoatingSolutions; and John Sudges, Midwest Finishing Systems

C11 – Running Efficient Liquid Coating Systems

8:00 – 9:00 AM: Efficient Finishing Technologies with Wendy Hartley and Blake Erickson, Graco

9:00 – 10:00 AM: Technology Advances that Helped Raytheon Design a Finishing System for the 21st Century Josh Peterson, IntelliFinishing; Speaker from Raytheon

C20 – Autodeposition & Powder Coating Hand-in-Hand

10:30 AM – **12:30 PM:** Autodeposition & Powder Coating Hand-in-Hand with John Cole, Parker Ionics; Jason Pfeifle, Henkel; June Nagle, Android; Kevin Hales, AkzoNobel

C21 – When to Use a Custom Coater

10:30 AM – 11:30 AM: When to Use a Custom Coater with John Heyer, Kettle Moraine

C30 – Powder Coating Conversion & Upgrade Case Studies

1:30 – 2:10 PM: Converting from Liquid to Powder: Doing the Research and Getting It Right with Larry Fenik, Nordson Corp.

2:10 – 2:50 PM: Liberty Safe: A Case Study with Charlie Haislip, Gema

2:50 – 3:30 PM: Great Lakes Manufacturing Completes Its World Class Operation with a New, Fast-Color-Change Powder Coating System with Frank Mohar, Nordson Corp.

C31 – Finishing Essentials: Conveyors, Racking, Testing & Paint Stripping

1:30 – 2:00 PM: The Truth About Production Line Gaps and How Current Conveyor Technologies Address Them with David Underhill, IntelliFinishing

2:00 – 2:30 PM: Corrosion Prevention Strategy: How To Educate Yourself Utilizing Tools And A Total Cost Approach! With John Spangler, Caterpillar, Inc. 2:30 – 3:00 PM: Start Right, Finish Right with Bruce Bryan, Mighty Hook 3:00 – 3:30 PM: Paint Stripping Solutions

with Matt Kirchner & Bill Oney, American Finishing Resources

TUESDAY, NOVEMBER 13

C40 – Conceptos Basicos de Pintura en Polvo en Espanol

8:00 – 10:00 AM: Conceptos Basicos de Pintura en Polvo en Espanol Antonio Tapia, Coral Chemical Co.; Antonio Gallegos, George Koch Sons, LLC; Hugo Cambron, Spraylat; Sal Garcia, Nordson; and Pablo Soto, DuPont IndustrialCoating Solutions

C41 – Finishing Essentials: The Importance of Cleaning Prior to Pretreatment

8:00 – 9:00 AM: Importance of Cleaning and Rinsing Prior to Pretreatment with Suresh Patel, Chemetall US, Inc.

9:00 – 10:00 AM: Troubleshooting Cleaning & Pretreatment with Jeff Watson, Custom Chemicals of Texas

C42 – Paint Line Efficiencies & Energy Savings

8:00 – 9:00 AM: Improving Paint Line Efficiency Amith Pinapala, Cummins Inc.

9:00 – **10:00 AM:** Maximize Energy Savings in Finishing with Bill Heuer and Nick Strauss, Graco

C50 – Efficient Curing with Infrared for the Finishing Industry

10:30 AM – 12:30 PM: Efficient Curing with Infrared for the Finishing Industry with Steve Paternostro, Alabama Power; Mike Chapman, Vulcan Catalytic; John Podach, Fostoria Industries, a div. of TPI

C51 – A World of their Own: What's Trending in Coatings?

10:30 – 11:10 AM: Sublimated Coatings – Reproducing Natural Grain Finishes, Eric Koslow, Decoral 11:10 – 11:50 AM: What's Trending in Architectural

Coatings with Mike Withers, DuPont CoatingSolutions **11:50 AM – 12:30 PM:** Coating Trends for the ACE Industries, Mike Vrshek, DuPont CoatingSolutions

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C52 – How World Class Coaters use Kaizen to Optimize Finishing Line Productivity

10:30 AM – **12:30 PM:** How World Class Coaters use Kaizen to Optimize Finishing Line Productivity, Matt Kirchner & Bill Oney, American Finishing Resources

C60 – Trends in Powder Coating Application Equipment

1:30 – 2:10 PM: Powder Spray Equipment – There's A Lot Out There, So Choose Wisely, John Carlson, Nordson Corp.

2:10 – 2:50 PM: Trends in Color Change Equipment, Loren Keene, Wagner Industrial Coating Solutions

2:50 – 3:30 PM: Advancements in Spray & Recovery Technology and the Impact on Powder Particles, Jeff Hale, Gema

C61 – Protecting Your Finishing Operation

1:30 – 2:30 PM: Spray Booth Safety, Marty Powell, Global Finishing

2:30 – 3:30 PM: Business Continuity: You MUST Be Prepared, Sam Woehler, George Koch Sons, LLC

C62 – Innovations in Pretreatment

1:30 – 2:00 PM: Processing Aluminum through a Zinc Phosphate Pretreatment System Terry Giles, Henkel

2:00 – 2:30 PM: Running Easy, Bruce Dunham, DuBois Chemicals

2:30 – 3:00 PM: Modern Transition Metal Pretreatments – Cutting Your Pretreatment Costs David Chalk, Ph.D., Galaxy – A DuBois Company

3:00 – 3:30 PM: Innovations in Pretreatment: Advanced Non-Phosphate Pretreatments with Gary Nelson, Chemetall

WEDNESDAY, NOVEMBER 16, 2011

C70 – Manual Powder Coating

8:00: – 8:40 AM: Part Cleaning & Pretreatment in a Manual Operation, Ken Kaluzny, Coral Chemical

8:40 – 9:20 AM: Techniques for Manual Powder Coating with AJ Smotherman, Gema

9:20 – 10:00 AM: Curing for Manual Powder Coating Operations, Ron Cudzilo, George Koch Sons

C71 – Advances in Porcelain Enamel Technology

10:30 AM – **12:30 PM:** Advances in Porcelain Enamel Technology, Cullen Hackler, Porcelain Enamel Institute, Inc.

C80 – Cost Saving Measures for Powder Coating

10:30 – 11:00 AM: System Design Parameters that Save you money, John Sudges, Midwest Finishing Systems

11:00 – 11:30 AM: The "Green Washer," Dave Schimpff, DuBois Chemicals

11:30 AM – 12:00 PM: Cost Saving Measures for Powder Coaters, Matth ew Rush, DuPont Industrial-Coating Solutions

12:00 – **12:30 PM:** Reducing Energy Costs on your Powder Coating Line, Sherrill Stoenner, Stoenner Finishing Consultants

C81 – Introduction to Electrocoat

STATE OF THE INDUSTRY: MANUFACTURER'S EXECUTIVE OUTLOOK

Monday, Nov. 12, 12:30 p.m. — 1:45 p.m. North FABTECH Theater

How are businesses that attend FABTECH dealing with change in today's manufacturing environment? Hear insights from leaders representing job-shops, contract manufacturers and other service providers who are dealing with the same issues of supply, demand, labor and changing business sectors that affect your survival in today's economy. Join the interactive Q & A lead by Chris Kuehl, FMA Economist to ask questions and offer your perspective on the future of the industry. Return to your company with new insights that will guide your decision-making in 2013.

MODERATOR

• Dr. Chris Kuehl, Economic Analyst, FMA; Managing Director, Armada Corporate Intelligence

PANELISTS

- Rick Taylor, President & CEO, Jay Industries Inc.
- Jerry B. Ward, Vice President Metcam Inc.
- Gregg Simpson, President and Owner, Ohio Laser LLC
- Shivie Dhillon, Owner and President, SunDial Powder Coatings
- Patrick J. Thompson (PJ), President, Trans-Matic Manufacturing Co.

POST-ELECTION ANALYSIS: HOW THE RESULTS IMPACT U.S. MANUFACTURING

Tuesday, Nov. 13, 12:30 p.m. – 1:30 p.m. North FABTECH Theater

The inauguration of the President and changes in Congress after the November general election will have a profound impact on U.S. businesses. This panel discussion will offer an in-depth analysis of the election outcome. Panelists will share their insight, as well as answer questions, on how the results will affect environmental regulation, tax policy, labor law, fair trade agreements, defense spending, energy policy, and other key issues that could impact U.S. manufacturing and your business in the years to come.

MODERATOR

• Paul Nathanson, Founding Partner, Policy Resolution Group

PANELISTS

- Omar S. Nashashibi, Partner,
- The Franklin Partnership, LLP
 Stephen Barlas, Author of "Around Washington" for
- the FABRICATOR" • David Goch, Partner, Webster, Chamberlain and Bean

NEW PRODUCT PRESENTATIONS

Throughout the show, the FABTECH Theater in the North and Central Halls will host FREE 30-minute exhibitor-led presentations introducing some of the newest, most innovative products on the market.

COCKTAILS AND COMEDY

Bring on the fun! Connect with new friends and old and celebrate the close of opening day "Vegas-style"

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Western Regional Office & Distribution Centre 4704-91st Avenue T6B 2L1 Tel: 780-468-9296 Fax: 780-468-5806 info@norspec.com 10:30 AM – 12:30 PM: Introduction to Electrocoat, Paul M. Kolesar, Ph.D., PPG industries, Inc.

CAI HEADQUARTERS HOTEL: Treasure Island has been designated as the CCAI Headquarters hotel. Shuttle service will be provided from Treasure Island to the Las Vegas Convention Center on all show days. The room rate at Treasure Island during show days is \$105 per night.

FREE FABTECH SPECIAL EVENTS

All FABTECH attendees are invited to enjoy these special events FREE OF CHARGE!

at the FABTECH Cocktails and Comedy event. Monday, November 12, doors open at 5:30; show is 6:15-7:00 p.m. Kick back, relax and enjoy a night of laughs with comedian Greg Hahn. Complimentary admission and beverage ticket with show badge.

HAPPY HOUR

Back by popular demand, FABTECH Happy Hour is a great networking and hospitality event that takes place on the show floor, Tuesday, November 13, from 3:00 – 5:00 PM. Attendees mingle in a relaxed environment while visiting exhibitors and viewing demonstrations. A complimentary drink ticket is included with a show badge.

 $20\,$ canadian finishing & coating manufacturing $\,$ september/october 2012 $\,$

Importance of Cleaning and Rinsing in the

PRETREATMENT PROCESS

BY SURESH PATEL

To increase the effectiveness of the finish, parts must be cleaned prior to coating. If the cleaner does not fulfill its purpose of removing unwanted soils from the substrate, subsequent processing steps will not produce a uniform conversion coating, and therefore inadequately protect the metal surface from corrosion. A high-quality conversion coating (pretreatment) combined with the appropriate organic coating is essential for the durability of finished products. Rinse water quality and proper rinsing are as critical, yet often-over-looked step in the pretreatment process. A well-designed, lean cleaning and rinsing process can help improve product quality, thru-put and higher profits.

WHAT HAPPENS WHEN YOU **HAVE A POOR FOUNDATION?**

The building blocks of a painted part include cleaning, rinsing, pretreatment and then paint and if one block is bad, everything on top of it collapses.

The purpose of cleaning is to remove any unwanted soils from the substrate surfaces, and prepare them for subsequent operations – in this case, pretreatment.

In Pretreatment, poor cleaning and rinsing is the major cause of painted part defects.

Poor cleaning has an impact on subsequent stages - i.e. phosphating. It can result in poor adhesion and painted performance, higher rework costs, higher warranty claims, process delays, customer dissatisfaction and impacts bottom-line.

CLEANING FUNDAMENTALS

Cleaning metals involves not only the selection of the type(s) of cleaners, but also the proper cleaning cycle and process equipment. Having a solid process, which meets or exceeds expectations, must be all encompassing to address soils, metals, water quality, and the process control and maintenance of the system.

The best way to begin the cleaning process is with a series of questions designed to promote both specifics and generalities that have an impact on the process.

FACT-FINDING QUESTIONNAIRE:

- What base metals are cleaned?
- What soils are on incoming parts?

- cleaning operation? Conductivity? Hardness? Chlorides and sulfates?
- Process mechanics and others?

CLEANING CONSIDERATIONS

The substrate, soil, water quality and cleaning mechanisms all need to be considered.

Substrates include: Steel - CRS, HRS, and HRP&O; Aluminum – Hot Dipped Galvanized (HDG), Electrogalvanized (EG); Galvalume; Galvannel; Brass, Bronze, and others (Yellow metals).

Types of Soils include: Organic contaminants such as Oils, Coolants, Waxes, Greases, Hydraulic Fluids, Buffing Compounds, and Mold Release Agents.

Inorganic contaminants include Metal Oxides, Rust, Laser Scale, Water Stains, Mill scale, Sanding fines, and Shop Dust & Dirt.

Difficult to remove contaminants are Silicones, Heavy High Temperature Greases, Surface Defects, Burnt on Soils, Old/Polymerized Soils and Paraffinic Soils.

CLEANING METHODS

Cleaning methods include mechanical, solvent and aqueous.

Mechanical: solid media impingement such as alumina blasting, steel shot, plastic media blasting, etc.

Solvent as in wipe cleaning, flow over (sink-on-adrum), vapor degreasing.

Aqueous cleaning includes alkaline, acid, neutral; single, multi-stage processes; spray, immersion, ultrasonic, electrolytic, vibratory and barrel. Typically it is part of a multi-stage process such as in 5-stage iron phosphating: clean, rinse, iron phosphate, rinse, seal rinse.

CLEANER SELECTION

Cleaner Selection is very important. Things to consider when selecting the correct cleaner are:

- Acid, Alkaline or Neutral? Acid cleaners are used to attack problems like oxides from laser cutting and mill scale. Neutral cleaners are typically used when substrate soil is very limited. Alkaline cleaners do the bulk of the work when surface contamination is organic in nature.

wastewater. Keep in mind the type of substrate and nature of the surface contaminants (oil, grease, dirt, lubes, etc) may necessitate using phosphates.

• Type of Cleaning Process? Spray, Immersion, Ultrasonic, Electrolytic, etc.

CLEANER MECHANICS INCLUDE:

- Spray Pressure / Coverage
- Agitation of immersion tanks
- Ultrasonic
- Electrolytic cleaning
- Brushes/Wiping
- Cleaner Concentration, Type Cleaner Solution Temperature

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- What soils are applied to metal in-house?
- What is the production flow of the products?
- What production assemblies are pre-manufactured and stored? Do they corrode in storage?
- Do the soils age or become more difficult to remove later on?
- Is the cleaning process capable of removing all soils e.g. mill scale?
- What are the physical size limitations of your products? During welding and fabricating, are soils entrapped or sandwiched between metals?
- Do you pre-clean prior to welding? If not, how much carbonaceous residue is left on or near weldments? Is oil entrapped?
- What is the quality of the water to be used in the

- Operating temperature? What is the temperature capability of the cleaner stage? Lowering the operating temperature can save some significant energy dollars.
- Powder or liquid? Liquid products are easier to handle. Powdered cleaners can be formulated much stronger than liquids and will reduce your system operating cost.
- Oil Splitting or Emulsifying? Amount and types of oils to be removed? Type of oil removal equipment – designed for floating/skimming, ultrafiltration, etc.
- Etching or non-etching? Galvanized and aluminum substrates can be severely etched by some cleaning products. Be mindful of what you're trying to accomplish when selecting a cleaner.
- Phosphated or phosphate free? Certain areas of the country have strict phosphate discharge limits for

 Outstanding array of solutions to match your application needs Highest level of performance ranging from short-term to long-term Significant cost savings resulting from fewer rejects and returns due to rust Low/No VOC

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INDUSTRIAL FINISHING:

RINSING

If "clean" means that all unwanted soils have been removed in the cleaning step, then the downstream step of RINSING is necessary to achieve THAT CLEANLINESS!

The only way to produce perfectly cleaned parts is to rinse them with GOOD quality water. As the substrate leaves the chemical process stage, it carries spent chemical, emulsified and loosened soils and other contaminants. The rinse must remove these unwanted materials so they do not interfere with the subsequent operations or contaminate them. In the case of a reactive process (e.g. phosphating), the rinse also serves to stop the chemical reaction.

Poor rinsing leads to cross-contamination of process chemicals and visually objectionable parts with streaks, spots, powdery coatings, particulate matter on surface. It can also lead to field failure of finished parts, blisters, delamination and corrosion.

If rinsing is poor, it doesn't matter how good the rest of the process is.

Rinsing - Performance Factors include contamination, temperature, contact time and solution movement such as pressure and agitation.

RINSING - CONTROL

- Conductivity / TDS, 350 ppm TDS above fresh water, 500 - 1000 ppm **TDS Maximum**
- Titration 3 per cent of Previous Stage
- Temperature 100 degrees F Maximum

Other Rinsing Considerations are: counterflow; misting after chemical stage; fresh water riser after rinse stage; conductivity/TDS of drip water and water quality.

Hard water can cause scale and can react with soaps creating sludge that clogs nozzles, higher surface tension - less ability to sheet, less corrosive and less prone to foam.

Soft water results in a low tendency to scale, lower surface tension – more

ability to sheet water, more corrosive, more prone to foam, high sodium content

Reverse Osmosis (RO) water is more corrosive than soft water; usually requires SS tanks and pumps, has higher purity than soft water, purity dependent on membrane cleanliness and condition.

Deionized Water (DI) is most corrosive; requires stainless steel and has highest purity. DI systems must be regenerated on a regular basis to maintain water quality.

MEASURING CLEANNESS

Methods for measuring surface cleanliness include the wipe test, water break, gravimetric and the tape test. Other methods include visual, coulometric Surface Carbon, Fluorescence, Radiotracer, Scanning Electron Microscopy (SEM), Energy Dispersive X-ray Analyzer (EDXA) and Fourier Transform Infra-Red (FTIR).

SAFETY

A MSDS – Material Safety Data Sheet lists hazardous ingredients, defines hazards, recommends personal protective equipment and recommends accident remediation. It is a good idea to keep MSDSs in a convenient location.

SUMMARY

Anyone can purchase and use an aqueous cleaning system, which will remove soils from parts. The "trick" to continually produce clean parts requires a robust rinsing process. Cleaning and Rinsing are most critical steps in the pretreatment process.

Suresh Patel is Business Manager, General Industry for Chemetall based in New Providence, NJ.



IN THE NEWS

continued from page 6

Good News in Automotive

Good news for automotive painters came this past July as Japanese automaker Toyota announced plans to expand its Lexus production in Canada.

Toyota Motor Corp. says it will invest \$100 million to boost production of the luxury Lexus RX crossover sport utility vehicle at its Cambridge, ON, plant. The company said the investment will create 400 jobs and boost annual production by more than 40 per cent within two years. The Cambridge plant will be able to make 104,000 Lexus RX vehicles a year, an increase of 30,000. Half the new capacity - 15,000 vehicles a year -will be for the RX450h, a hybrid electric version of the popular luxury vehicle. This is the second time in a year Toyota has announced plans to increase capacity in Canada as it heads for a record production year in North America. In March, Toyota said it would invest \$80 million to expand capacity at its Woodstock facility by a third. The plant makes the smaller RAV4 sports utility vehicle. The Woodstock plant will be able to produce 200,000 RAV4 vehicles annually, up from 150,000, by early next year. Total direct job creation at Toyota will rise by 800 jobs to a total of 7, 300 this year. Meanwhile, GM Canada plans to invest close to \$1 billion in research and development at its Oshawa manufacturing complex. Some \$850 million will be spent through to 2016, on engineering and research and development partnerships with Canadian universities. The research will focus on environmental technologies, reducing vehicle weight and intelligent transportation systems.

Rick Reagan Appointed President of Enthone

Cookson Performance Materials, a division of London-based Cookson Group plc, recently announced the appointment of Rick Reagan as President, Enthone Inc.

Reagan will lead the high performance specialty chemicals company's global organization that operates in more than 40 countries and includes 10 manufactur-



ing facilities and nine technical centers strategically located worldwide.

Reagan will report directly to Steven Corbett, CEO of Cookson Performance Materials (CPM), which includes both Enthone and the Alpha electronic assembly and advanced materials business. Mr. Corbett, who previously served as Enthone's president, will now devote his responsibilities to CPM and as an executive director of the Cookson Board of Directors.

Reagan has been with Cookson and Alpha for thirty-three years. Prior to his promotion, he was the Executive Vice President for Alpha Asia, the largest and most profitable business unit within the CPM division.

Reagan is a graduate of Xavier University in Ohio, USA. He resides in Singapore with his wife Mary and daughter Devon. He will relocate to the United States in 2014.





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Association News

OPCA Golf

The Ontario Painting Contractors Association (OPCA) wishes to extend sincerest thanks to all Sponsors of the OPCA Golf Tournament 2012.

Thank you for raising \$20,000 towards the Malcolm Satov Memorial Bursary Fund.



Best Team: Dave Batten (Manz Contracting), Jarrod Batten, Jordan Battenand Jim McCollum.



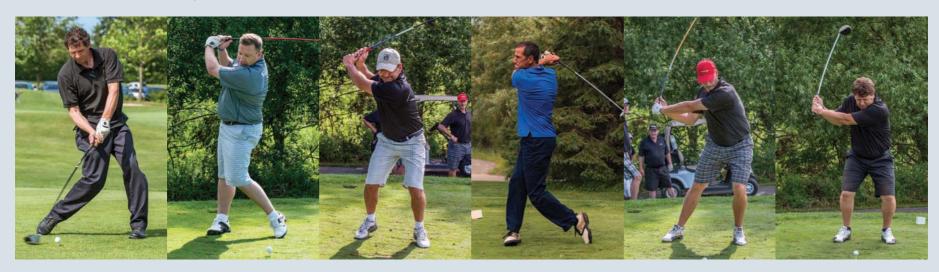
Men's Longest Drive: Brian Stritch (National Steel) winner, Thomas Corbett (ECL Engineered Coatings Ltd. and OPCA President) and Candice Kaye (OPCA).



Ladies Longest Drive: Bonnie Bechard (Peerless Painting) winner, Thomas Corbett (ECL Engineered Coatings Ltd. and OPCA President).



Ladies Closest to the Pin: Candice Kaye (OPCA), Bonnie Bechard (Peerless Painting) winner, Susan Fitzpatrick (OPCA).



SHOW ISSUE

Bonus circulation from our booth at:

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www.cfcm.ca

Association News

Canadian Paint and Coatings Association Held Annual Conference in Vancouver



Tim Vogel, Cloverdale paint.



Rosslynn Miller-Lee, Global Harmonization, Health Canada



Charles Bangert, Orr & Boss Inc.



Ed Thompson, L.V. Lomas.

CPCA Conference Day 3

continued from page 10



Very well attended Conference.



Dick Glassford, General Paint.



Ross Prevost, Keynote Speaker.



Gary LeRoux, CPCA.



Amardeep Khosla, CEPA.



Anthony Danks PC Ministry of the Environme



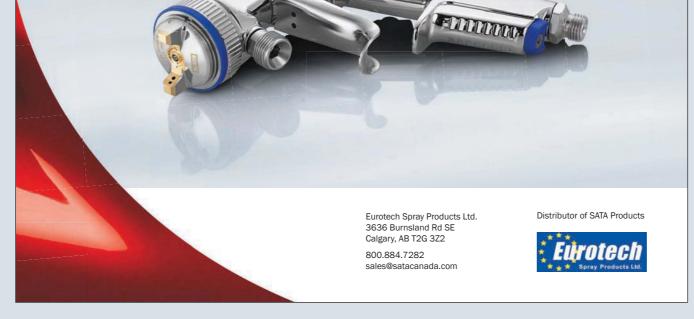


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Anthony Danks, BC Ministry of the Environment



Andrew Marr, Metro Vancouver Waste Management.

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The Aluminum Association, Aluminum Extruders Council, & Aluminum Anodizers Council Examine

"THE ROAD AHEAD" AT 2012 ALUMINUM WEEK

Automotive, Building & Construction Markets, Sustainability, Trade, the Economy, Manufacturing Policy & Industry Issues to be Addressed

The Aluminum Association, the Aluminum Extruders Council (AEC) and the Aluminum Anodizers Council (AAC) have released the program details for Aluminum Week 2012 in Chicago, Illinois. This event marks the third year of cooperation between the organizations to offer a program featuring comprehensive education and networking opportunities for aluminum industry professionals.

Aluminum Week will be hosted at the Renaissance Downtown Chicago from Monday, October 15 to Thursday, October 18, 2012. The co-located event features The Aluminum Association's Annual Meeting, the Aluminum Extruders Council's Management Conference and the Aluminum Anodizers Council's 21st Annual International Anodizing Conference. The weeklong event is composed of programming focused on "The Road Ahead", addressing issues including: market opportunities, policy, the economy, the November election and the state of American manufacturing. The event can be followed on social media using the hashtag #AlWeek.

Aluminum Week includes sessions and events open to aluminum industry professionals, including members of The Aluminum Association, AEC, and AAC and members of the press:

Monday October 15 features the

and Manufacturing" covering previous trends in the industry and novel growth in traditional application areas,

Bernadette Budde, Senior Vice President of the Business & Industry Political Action Committee (BIPAC) and an astute observer of campaigns and Congress, will shares her expertise on the intersection of politics, business and industry including an outlook for the November elections;

Michael Robinet, Managing Director of IHS Automotive Consulting will discuss shifting demand, government regulations and new technologies in the automotive industry with an historic perspective on success drivers such as quality, cost, risk mitigation, sourcing and flexibility;

Richard Schultz, Managing Director for Automotive Materials Practice for Ducker Worldwide, will discuss over lunch the growth of aluminum and other materials in future automotive designs with an emphasis on Ducker's forecast of aluminum content, as a percentage of the overall mix, to double by 2025 and

The evening's Aluminum Marketplace reception will featuring tabletop exhibits by Aluminum Association, AEC, and AAC suppliers.

Wednesday, October 17 features a joint Aluminum Association/AEC/ AAC General Session with speakers including:

Mitch Bainwol, President & CEO, Alliance of Automobile Manufacturers, providing his perspective on the automotive sector, as well as examine policies that are driving auto manufacturers to build increasingly fuel-efficient vehicles and aluminum's role in that dynamic market; National Association of Manufacturers Chief Economist, Chad Moutray, who will discuss the economic health of manufacturers and provide an economic outlook for the aluminum industry, focusing on the sectors that are growing strongest and the economic and policy challenges for

manufacturers; and

Ujjval Vayas, JD PhD Principal at Alberti Group LLC, will look at the rapidly changing landscape of the building & construction industry, and how aluminum's flexibility and sustainability positions it well to allow manufacturers and suppliers to take full advantage of the opportunities and minimize the risks.

Additionally,Wednesday will feature the Aluminum Association's Press Roundtable beginning at Noon Central time. Members of the press are invited to participate in-person or via teleconference. Contact James Lewis (jlewis@aluminum.org) for details.The roundtable will feature:

Pat Franc, Aluminum Association Chairman and President of Tri-Arrows Aluminum based in Louisville, Kentucky

Layle "Kip" Smith, Aluminum Association Vice Chairman and President and CEO of Noranda Aluminum based in Franklin, Tennessee

Jean Simon, Aluminum Association Executive Committee Chairman and President of Primary Metals, Rio Tinto Alcan based in Montreal, Quebec and

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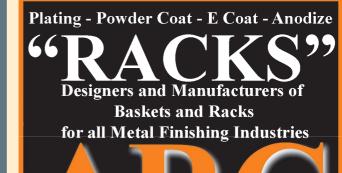
www.associatedr

Heidi Brock, President of the Aluminum Association.

Wednesday also features AEC/AAC Breakout Sessions in the afternoon, including tracks covering New Developments in Anodizing, Best Practices, and All About Extrusion, as well as a Mini-Workshop on Management & Strategy to help business owners and highlevel managers to evaluate, develop, and execute business plans.

Thursday, October 18 features a joint AEC/AAC General Session to wrap up Aluminum Week. Speakers include:

Michael Stumo, CEO of the Coalition for a Prosperous America, will review the U.S. trade deficit and discuss its impact on GDP growth, jobs and wealth creation. He will examine the role of trade law enforcement and suggest systematic solutions for productive international and domestic trade, and Timothy Hayes, Metals Equity Analyst, Davenport & Co., will provide an industry analysis and forecast that will focus on the outlook for U.S. downstream aluminum markets with an emphasis on the "Three Cs", cars, cans, continued on page 28



Monday, October 15 features the Aluminum Association's welcome reception, sponsored by Aleris International and the Association's Annual Dinner.

Tuesday, October 16 will feature the Aluminum Association Annual Meeting and General Session with speakers including:

Jack Hockema, President, CEO and Chairman of Kaiser Aluminum who will offer a presentation entitled "History and Perspectives on Aluminum as a Modern Metal in Transportation, Construction Associated Rack Corporation Associated Rack Corporation "The Right Start to a Perfect Finish" Serving Canada and the USA from 7 Manufacturing Locations (312) 595-9076 / arcracks@associatedrack.com WWW.ASSOCIATEdrack.com We Now Accept Major Credits Cards WISA

ANODIZING TRENDS and OPPORTUNITIES



By Joe Pasquarelli

Where is the future of the anodizing processing business headed? What investments are worth considering? How do you protect yourself from down side risk? Can a local shop exist when offshore manufacturing has decimated the local manufacturing community? These are all worrying questions for the owners of anodizing shops. While there is no new upset processing technology on the horizon to replace or change the process of anodizing there are many refinements to existing equipment, chemistry and methods that can dramatically improve quality and the bottom line. Some techniques are now available that allow us to do things that we would not have considered in the past. In answer to these questions I believe that one has to first look at the big picture and then find a way to recognize opportunity then lastly place your operation in a position to leverage that opportunity into a successful profitable business.

CHINA VS NORTH AMERICA

facturing being done locally has changed forever. Owners should be keenly aware of their customers' future potential and manufacturing strategy so that they can make better business decisions. Understanding your customers' business model becomes your best insurance to making lish became significantly poorer once contracts are signed, production starts and the phone starts to ring with questions that need answers. We have a significant time difference, which only adds to the communication hurdle. The distance to China makes it expensive to visit so trips are kept to a minimum and this will impact on the ability to audit the manufacturer and also meet to discuss new designs or improvements that the seller may need. Products made in China must be paid for in advance and the time from order to market is very long so the buyer must commit financially to a fixed quantity long before they receive the product. If in the weeks or months from the time the order was placed the buyer needs to reduce or increase quantities or make product improvements they cannot. This problem increases the risk

Over the last decade China has been very successful in becoming the manufacturer for the world. China excels in low cost, high volume production. This has resulted in the closing of many manufacturing and assembly plants in North America. As this occurs the supporting fabrication shops are forced to either change their focus or go out of business. Many businesses get caught in a race to continuously decrease their price then loose the business to China anyway. So going that route often leads to the failure of the business because there is no long term upside. One needs to recognize that the type of manubecomes your best insurance to making wise investment decisions.

So we now know what China's strength is but where do its weaknesses lie? At this moment the quality of some Chinese products has improved, but there still exists many smaller manufacturers whose quality is not up to world-class standards. There is a language barrier that can manifest itself in a variety of ways such as when trying to design complex critical assemblies or resolve issues that will come up in the normal course of business. I have heard many stories of Chinese manufacturing representatives who's whose Eng-

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to the buyer and runs opposite to the "Just in time" philosophy that is so desirable in improving quality, reducing working capital and risk.

Security of supply of critical products and technology has become an issue in the post 9/11 world. There are numerous contracts that stipulate North American content only. Many think that this only applies to military products but there are a large number of non-military products that we want to keep under domestic control. Products such as sophisticated electronics, precision optics, nuclear components, aerospace technology, alternative energy and new security related software are all being mandated as products whose research, design and manufacturing are desirable to keep locally made. These products will keep a level of local competence that the government sees as desirable.

So the trend is that low to medium volume technically complex manufacturing is a market that will continue to exist and even grow in the future. One off prototypes, automation equipment, difficult to make components with tight tolerances, customized equipment, repair parts, parts requiring a lot of design assistance, rush orders and startup manufacturing are our strengths. As the complexity decreases or the volume increases then the risk of the job moving offshore will increase. The target customer is the exact opposite of high volume repeat commodity purchases. These types of customers exist in Automation, Aerospace, Military, Energy generation, Construction, Mineral extraction, Electronics, Food and Pharmaceuticals. The proof of this theory is the recent talk of insourcing by some manufacturers. Insourcing is when components or complete products are returned to North American production because the offshore manufacturer could not meet the buyers' expectations. Too many buyers jumped on the outsourcing bandwagon for all of their needs without considering the total impact on their products or bottom line. Of course the products being insourced are not those high volume commodity items but the low volume complex items whose demand is hard to predict and whose design may change often.

cator the more difficult it is to provide the expected level of service. We can call this the optimal service radius (OSR). For many businesses this OSR is a 2-3 hour drive from your location. Having a more specialized offering can significantly increase the OSR. Doing an OSR analysis of your current customer base is a worthwhile exercise. Review all of your customers that lie outside the OSR and try to identify why they do business with you. If there is some core competency then this would be a good area in which to spend time and effort on promotion. You may also use this exercise to identify areas in which you want to make new investments. In some cases you may discover a group of customers in a community outside your OSR that has no local anodizer. In this case a concerted effort to work that area is needed in order to prevent a competitor from opening a shop there. You could consider making more sales calls there, adding a local sales rep. or offering a dedicated freight service to that community.

Recognizing your core competency is important because it allows you to focus on it and develop it further. Capital for new investments is always limited so knowledge of what your customers see as your strength is one of the keys to success. A business owner also needs to be keenly aware of the all the successful businesses and startups inside of the OSR. Staying aligned with local needs requires constant contact with existing and prospective customers. Use all of your employees as a resource for feedback on how you are doing. Every contact with the customer is an opportunity for feedback, creating goodwill, getting production numbers or information on new projects being considered. A formal method of collecting and retrieving that information can be an invaluable and low cost sales tool.

After having identified your core co

regular basis usually every one to two years. Manufacturing software, documentation and staffing requirements will all be impacted by a decision to move into more stringently controlled processes. Once you meet all of these demands then you benefit by being placed on approved vendor lists that give you some level of exclusivity. The downside is that the higher up the quality ladder you go the higher your costs and you lose competitiveness at the lower end of the market. So the decision to go after aerospace or other high specification work should be thoroughly examined before committing to the additional audit, testing and documentation requirements.

Many anodizers make a place for themselves by offering tanks sized to specific industries. The aluminum extrusion industry requires very long narrow tanks with high throughput and low costs. The extrusion industry is a large user of anodizing services and in some cases will buy out or build their own lines if the market does not service their requirements. The extrusion industry has survived the downturn and output is expected to grow as aluminum use increases in automotive and architectural applications.

The other class of anodizer is the shop that primarily services low to medium volume fabricators. These customers may appreciate more technical and design support in selecting the right coating for the application. Often fast turnaround times can make you the vendor of choice. Having more colours or electrolytic colouring available can remove headaches from your customer and make you more valuable to them. Any additional value added processes can add to your desirability. Things such as ability to perform complex masking, parts washing, alodine, passivation, heat treating, aluminum impregnation, engineered coatings, minor assembly or fabrication

should all be considered as opportunities' to help your customers.

Technology improvements will now allow anodizers to do jobs they would not have considered in the past. Rectifier controls can automate processing parameters. Software can be used to log the anodizing process in order to collect parameters for future runs or to provide real time process data. Amp anodizing can now be used in contract shops by using load metering. Thickness of coating can be tightly controlled by building conforming cathodes. Pulse plating can speed anodizing while reducing burning risk and making tougher coatings. Tank chemistry can be automatically measured and metering pumps can take care of additions. Additives to the anodizing tank can reduce the risk of burning and or allow faster coating build times. Masking can be cut from sheets with high accuracy for intricate parts. Acid purification units can quickly correct the buildup of impurities in the anodizing tank. Ultrasonic cleaners can "scrub" parts to ensure a higher level of cleaning. Polymers can be added to the anodized coating to give it unique properties. Thicker harder anodize coatings can be achieved by combining these technologies to create a larger anodize cell structure with smaller pores. In general we are now able to more tightly control anodizing parameters and measure them so that we can repeat them more accurately.

So rather than creating a shopping list of new technologies or services that an anodizer must consider I would recommend that an analysis of your customers and local business conditions be carried out first. Then adjust your business model and future technology investments to suit the conditions at hand.

Joe Pasquarelli is General Manager of Aluminum Surface Technologies, Burlington, ON.

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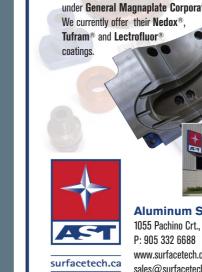
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OPTIMAL SERVICE RADIUS

Anodizers cannot exist in a vacuum, they need local fabrication shops to service. The further the anodizer is from the fabriAfter having identified your core competencies you may want to further develop them in order to gain more business or serve a larger OSR.

ISO registration is the expected minimum quality system and aerospace customers have made Nadcap mandatory for virtually all suppliers. Along with the various registrations will come a need for better internal testing capability and the use of third party 17051 accredited laboratories' to verify the quality of your processes. Aerospace, military and other demanding customers also expect that you will submit to supplier audits on a



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"THE ROAD AHEAD" AT 2012 ALUMINUM WEEK

continued from page 25

and construction.

"Hosting these events together allows for a dynamic program covering many areas of the industry," said Heidi Brock, President of The Aluminum Association. "Aluminum Week 2012's program will give participants insights into the future for market growth, policy and manufacturing."

"There is a great deal of synergy between our three organizations, and Aluminum Week provides the information and tools our members need to make smart and informed business decisions," said Rand Baldwin, CAE, President of the Aluminum Extruders Council.

"Aluminum Week 2012 presents an exceptional opportunity for members of three important aluminum trade groups to gather together and make connections that will support their own success while strengthening the industry overall," commented Greg Rajsky, CAE, President of the Aluminum Anodizers Council.

Aluminum Week also will include networking events throughout the week and optional

educational classes from AAC's School for Anodizers program. The AAC program includes Anodizing Essentials, an intensive Level 1 technical workshop focusing on the basics of quality anodizing and is designed to increase the knowledge and ability of anodizing production personnel, particularly those new to the business, and Anodizing Quality, the Level 2 advanced class that moves beyond the basics to address quality and process issues commonly faced by anodizers. Anodizing Essentials will be presented as a two-part workshop on Monday afternoon and Tuesday morning, while the Anodizing Quality Workshop is scheduled for Tuesday afternoon.

Registration and additional program details can be found through AEC at www.AECmeets.org, The Aluminum Association at www.tinyurl.com/ AluminumWeek, and AAC at www.AACconf.org.

Next Steps Richard Thibodeau,

Michael Kuntz CASF

Surface Finishing Trends:

Christian Richter, The Policy

Group, Washington D.C./ NASF

Technical Alternatives to Nickel, Chromium, Cobalt and Cadmium

Keith Legg, Rowan Technology

Break and Exhibitor Viewing

Group / ASETS DEFENSE

A Global Perspective

1:30 - 2:15:

2:15 - 2:45:

2:45 - 3:00:

CASF ENVIRONMENTAL FORUM 2012

Environmental and Regulatory Update for the Surface Finishing Industry"

The Canadian Association for Surface Finishing (CASF) will be holding its Forum on Tuesday 13th November 2012 at the Hilton Garden Inn Toronto, Vaughan 3201 Highway 7 West Vaughan, ON. This CASF Forum is an opportunity to discuss with fellow industry finishers, suppliers, government officials and environmental experts common concerns regarding the numerous regulations exiting and coming and how they will affect your company and our industry. **Representatives from Environment** Canada, Ontario Ministry of Environment, Nickel Institute, NASF and others will be speaking.

Forum Agenda

8:30 am: Welcome and Introductions Richard Thibodeau and Michael Kuntz, CASF

8:45 – 9:15: Environment Canada Chromium Regulations Update P J Paine, Environment Canada

9:15 – 9:45: Environment Canada PFOS Regulations Update Manon Drake, Environment Canada

9:45 – 10:15: Break and Exhibitor Viewing 10:15 - 10:45: Toxics Reduction Act: Update from the MOE Laura O'Reilly, Ontario Ministry of Environment (MOE)

10:45 – 11:30: Local Air Quality Regulations and the Metal Finishing Sector Christina Labarge, Ontario Ministry of Environment (MOE)

11:30 – 1:00 pm: Lunch and Exhibitor Viewing

1:00 – 1:30: Canadian Association for Surface Finishing Update: Revival and

> **3:00 – 3:30:** Nickel Update:Trends from the EU Hudson Bates, NiPERA -Nickel Institute

3:30 – 4:00: Q&A and Final Forum Thoughts Richard Thibodeau, Michael Kuntz CASF

The Canadian Association for Surface Finishing (CASF) is the principal surface finishing industry association in Canada established to provide business services to its members. CASF aims to provide a single unified voice for the surface finishing industry in Canada.

C SF

Canadian Association for Surface Finishing

Guest speakers to include representatives from Environment Canada, Ontario Ministry of Environment (MOE), NiPERA - Nickel Institute, NASF and others!

Who Should Attend? Environmental Managers, Supervisors and those responsible or interested in environmental and regulatory issues for your company, Managers and Business Owners.

CASF ENVIRONMENTAL FORUM

Environmental and Regulatory Update for the Surface Finishing Industry

> Tuesday, November 13th, 2012 8:30am - 4:30 pm

Hilton Garden Inn Toronto 3201 Highway 7 West, Vaughan, ON

Space is limited, pre-register to confirm your attendance. For more information on event details and registration **please visit www.CASF-Forum.ca** **Early Bird registration before Oct.1/12** \$150 per person (\$175 after Oct. 1) \$400 per exhibitor (\$500 after Oct. 1) Includes coffee breaks, snacks and lunch.



www.CASF-Forum.ca

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TODAY'S METAL FINISHING RECTIFIER

By Fred Mueller

The rectifiers we use today go from fairly simple to very sophisticated with a wide range of electronic controls. Here are some ideas to get the most out of your rectifier:

SCHEDULED PREVENTIVE MAINTENANCE

Scheduled preventive maintenance has a major influence on the life of a rectifier.

Remember that calibration of the meters every year does not mean that the rectifier is working properly. Three-phase rectifiers can lose a leg and the volt and amp meters may not be fast enough for you to see the dropped wave.

The rectifier maintenance schedule falls on management's shoulders to make the right decisions to achieve a balance between cost and downtime. If service is needed they can use in-house personnel or factory authorized service. The whole point of scheduled preventive maintenance is reducing unplanned down time. Metal finishing shops are not known for their wonderfully aerie environments. So we have a simple rule: the worse the environment the more effort you need to maintain the system.

KEEP IT CLEAN!

Because the metal finishing environment is so unforgiving to equipment in general but especially for electrical stuff, cleanliness is even more important. When shop dust and dirt mixes with the very humid air common in metal finishing atmospheres the dust and dirt can become sticky and adhere to the interior electrical parts and wires. Now, add to this the acids vapours that are drawn into the cabinet and the metallic salts they form. Both the acid vapours and the salts are corrosive and conductive. Conditions in the housing are ripe to cause electrical shorts as the conductive salts create a pathway between electrically charged parts. These conditions work together to speed-up the deterioration of the electrical and non-electrical parts alike. In most cases an annual preventative maintenance program is enough to ensure that the rectifier will not fail you just when you start that critical job for the new customer you want to impress.

A SIMPLE DIY PREVENTIVE MAINTENANCE LIST FOR AIR-COOLED RECTIFIERS

(Don't start if you don't have the skills and can't do this safely.)

- Use LOCKOUT/TAGOUT procedures and secure/test all power sources before starting
- Vacuum up loose debris around the outside & wipe down the exterior with a clean cloth.
- Clean around and under the base particularly near the air intake(s).
- Use a combination of a vacuum cleaner and a soft cloth/brush to clean the interior components. (The brush should be stiff but not metal-lic.)
- Vacuum the air inlet/outlet screens and clean/replace the filters.
- Clean the cooling fan blade and motor (check the bearings).
- Next the heat sinks can be cleaned using a stiff brush (non-metallic) to remove the buildup/corrosion in the cooling fins. (They may be removed for heavy duty cleaning/replacement as needed.)
- Check out all of the electrical and mechanical connections to be sure they are clean and tight.
- The controls/electronics can be cleaned with a soft bristle brush and the canned air found in photography stores or online to gently clean debris from control surfaces.
- Look at the shunt for signs of corrosion and its wires for cracking of the insulation. Exposed wire from the cracking may cause incorrect amperage and voltage readings.

You may need to contact the equipment manufacturer or others for help if the problems are too numerous or technically more than your team can handle safely. desk. Brighteners can be automatically added based on the amp-hours. The larger system can track the conductive of the soak cleaner, electro-cleaner and acids and make chemistry adds while monitoring the level of the concentrate be it a 55 gallon drum or larger tote.

NOT JUST DIRECT CURRENT

Today's pulse rectifiers can supply the amps needed to work extremely well with high current processes like hard chromium and anodizing. Hard coat anodizing and hard chrome plating are the two most successful, large-scale (based on the size of the rectifier) commercial applications.

HARD CHROMIUM

Pulse current in hard chrome plating a deposit is crack-free and very smooth. The smooth deposit, in turn, creates a very hard chrome layer. The electroplating of engine cylinders is an interesting application of this property. By using pulse at the beginning of the plating cycle a smooth hard chrome layer is placed next to the base metal. Then, the waveform is changed over to DC to produce microcracking in order to give oil a place to cling, A pulse rectifier can be used to get the best of two worlds out of the same plating bath chemistry. Chromium III chemistries that are additive free can provide comparable thickness and hardness



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For example, in reel-to-reel plating the data from real time thickness measurements can be used by a computer to control the rectifier/plating amperage of the cell to keep the deposit thickness within the specified range.

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PLATING AND ANODOZING

to chromium plated from hexavalent chemistry with the use of rectifiers that can modify DC waveforms.

DUMMYING

Under certain conditions, it is adventitious to setup a separate power supply/plating cell inside of the plating tank or in an auxiliary tank outside to the plating tank. You can use a wide range of electro-chemical reactions to your benefit. For example, plating at low current density can remove metallic contaminants from your plating bath to extend its useful lifetime. The common term for this is Dummying. Continuous dummying is often use by high volume shops to minimize down time. The copper that can build up in nickel bath from the parts can be dummied out using a very low current density (CD). A large piece of corrugated steel (the ripples help to lower the CD even lower) is placed into the nickel bath and plated at normal current density for about 20 minutes to coat the steel with nickel to prevent iron contamination before lowering the CD to 3 amperes per square foot and lower. We are taking advantage of the fact that copper plates out preferentially to nickel. Please note that because of the concentration of nickel metal to copper metal in the bath nickel, the nickel will be the majority of the deposit but the copper content in the bath will be dramatically lowered.

High current density is also a helpful

tool to extend the lifetime of plating baths. Excess brightener can plated out a higher than usual current densities. This may work better than a carbon treatment if you only have to remove a little bit of brightener.

Another way to use high current density dummying is with a hexavalent chromium bath as you can remove chlorides and oxidize trivalent chromium back to the hexavalent form. One way trivalent chromium is from in a "hex" bath is when organic contamination occurs (oils, greases, shop dirt, etc.) because the hexavalent "chews up" the organics and is converted to trivalent chromium. The trivalent chromium ion can be oxidized back to "hex" by dummying. A very high cathode CD of over 500 amps per square foot is used.

There are some very good reasons to maintain/upgrade your current rectifiers. Better, Faster. Lower Production Costs to name a few. The use of the right technology to strengthen your company makes a lot of dollars and cents. The right rectifier well maintained improves the bottom line.

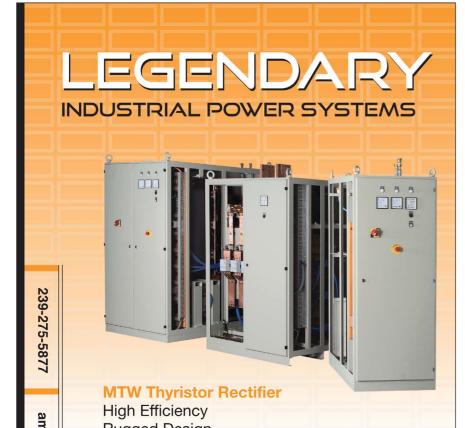
Fred Mueller is Corp. Quality and Safety Manager at General Magnaplate Corp. and past president of the American Electroplaters and Surface Finishers Association, Inc. (AESF).



Brad Wright and Rudy Koehler, Innotech Precision, Toronto.



Chris Nastiuk, and Roger Potratz, Northern Industrial Plating, Saskatoon, SK.





Wahab Ali, Technichrome and Jeff Ali, Rotorchrome.



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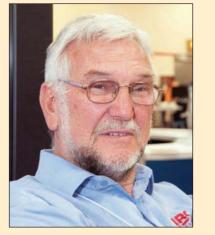
Waasy Boddison, American Plating Power with opening speaker Rick Dale from the Rick's Restoration TV show.

SURFIN 2012, A HIT IN VEGAS

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Jim Emery, Southeast Canada and Jeff Battiston, Autum Purification



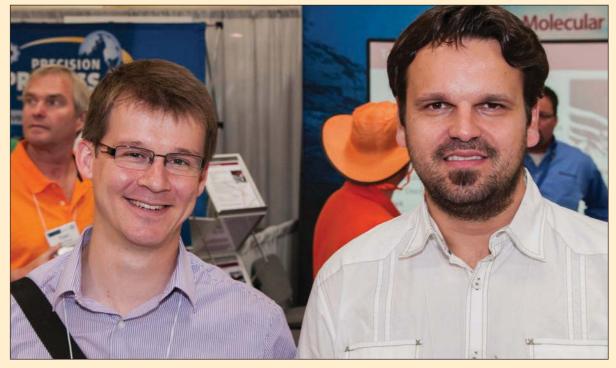
Joe Brinkman, JBC Ltd.



Christian Canzano, Bex Spray Nozzles



Gary Coates and Stephanie Dunn, The Nickel Institute.



Dmitri Stepanov, University of Toronto and Florin Burca, Apex Composites.





Cina Lactoria Empire Puf



Gino Lastoria, Empire Buff.



Stewart Tymchuk, Dennis Rogers, and Charles Morris, Dynamix Inc.

Paul Pajunen, ECO-TEC Inc.

Photos By Pete Wilkinson

SEPTEMBER/OCTOBER 2012 CANADIAN FINISHING & COATING MANUFACTURING 31

A Revolutionary Chloride

GLOBALLY HARMONIZED SYSTEM (GHS), Where We are in Canada

BY DAVE SAUCIER

This is the second and final article to be published regarding the Globally Harmonized System, for the time being. This first covered the US Final Rule and implementation schedule as reported last April. This article will cover the anticipated Canadian version of GHS and some gaps that could provide challenges for cross-border trade.

First, let's keep to the factual. Canada has in force the Workplace Hazardous Materials Information System (WHMIS) as part of the Hazardous Products Act. WHMIS must be maintained by Canadian employers and importers. WHMIS labelling is and will continue to be required pending legal implementation of GHS in Canada.

Before being able to publish the draft regulations in Canada Gazette I, Health Canada must complete a full economic analysis to complete the Regulatory Impact Assessment Study (RIAS). Although there is no precise timetable, it's reasonable to expect a Canada Gazette I Draft GHS regulation around the end of March 2013. This will be followed by the standard public consultation period. I expect a quick turn-around with Canada Gazette II, which is Canada's version of a US Final Rule, at least one year prior to the scheduled June 1, 2015 full implementation date for the United States. I strongly suspect that the Canadian legislation will be very closely aligned with the US Final Rule, however, until the Gazette II publication, everything I am going to report from this point on is mere speculation. Here are some salient points that need to be worked out.

Definitions around "delivering" the Safety Data Sheet (SDS) and its expiration date. Under current WHMIS regulations MSDS's must be updated whenever information changes or every 3 years, whichever occurs first. Significant information change needs a clear definition.

Exclusions and definitions around use and handling as well as supplier and substance require clarity. A small container "legible" labeling guideline is one example.

The label layout will likely exclude the unique to WHMIS thatched border. Location of precautionary statements on the label should be aligned with the US in order to preserve harmonization.

Ingredient disclosure and adoption of environmental hazard reporting may be two areas where Health Canada could stray from the US GHS standard. Clear distinction between health and physical hazards are required to ensure proper ingredient disclosure.

Combustible dust has been added to the fray. We will definitely need to look at



Globally Harmonized System

ation and Labeling of Che

other jurisdictions and how they are handling this new classification. Hopefully we align as close as possible to the US for continuity.

Respiratory corrosion is another new class that requires consultation so that we get it right. There is much confusion about the relationship between corrosion to skin and eyes and corrosion to the respiratory tract.

Manufactured articles will require clarity on how and when GHS will apply. And,

We can't forget the hot topic of Confidential Business Information (CBI), especially when the US and Canada are miles

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apart on current practices. How will the current Hazardous Materials Information Review Commission (HMIRC) function under GHS and how will CBI be handled are important trade questions.

Here is an update on some of the challenges I noted in the first GHS article last May.

The first challenge was how Mexico integrates into Canada/US GHS harmonization – no news yet.

The second challenge was when and how to begin the relabeling of products and the transition to new Safety Data Sheets (SDS). As of now, my understanding is Canadian employers and importers can transition to a GHS SDS, however the WHMIS label will stay pending full implementation. More info will be available during stakeholder consultations immediately after the draft regulations are published in Gazette I. Be sure to follow the CPCA for news on this important transition activity.

The third challenge was that paint and raw materials produced in the US or offshore for the Canadian market will need to maintain current Workplace Hazardous Materials Information System (WHMIS) this will remain in place until full transition is in place because it aligns with employee training

The fourth challenge mentioned was the \$ cost. It won't be cheap. Employee training, converting MSDS's to SDS's, and the WHMIS to GHS label transition will be expensive for Canadian manufacturers and raw material importers.

The last challenge I closed with was the timeline. Despite not even having a Canadian draft regulation to review the June 1, 2015 deadline appears to be fixed and unmovable.

I suggested that everyone brace themselves at the beginning of the year. Now I can only advise you to hold on tight! The

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Chemical Management Plan Phase 2 (CMP2) is moving full steam ahead as predicted. Ontario's Toxic Substance Reduction regulations kick in at year's end and job security continues to only exist in the regulatory sector. I received my Toxic Substances Reduction Planner license so that the Canadian Association of Chemical Distributors (CACD) could offer planning services as a stewardship initiative to downstream users.

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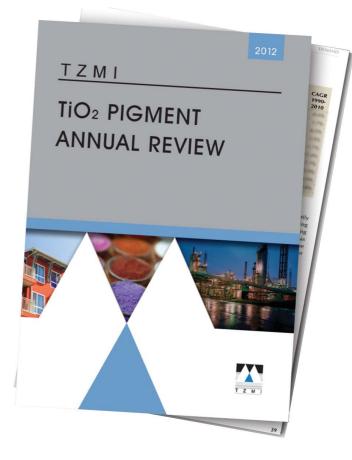
Dave Saucier is Vice President, HDTS Chemicals Inc. www.hdtschemicals.com

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The State of the Global Marketplace

TiO₂



In its TiO_2 Pigment Annual Review 2012 - Leading Independent Global Report published in June 2012, TZ Minerals International (TZMI), a global, independent consulting and publishing company with offices in Australia, China, the US, Europe and Africa, discusses the state of the US\$17 billion global titanium dioxide pigment market.

"In 2008, the TiO_2 pigment industry operated in an environment of depressed profitability with record high raw material and energy costs resulting in an oversupply of TiO_2 in western markets.

With the onset of the Global Financial Crisis (GFC), inventories were drawn down and capacity idled, making it difficult to restart the supply chain when the market recovered.

The tight supply situation started in 2010 and continued through 2011, with price increases announced regularly during the two year period. As a result, global pricing increased by 8 per cent in 2010 and almost 40 per cent in 2011.

As the TiO_2 producers recovered profitability, it became clear that the titanium feedstock producers were next in line. The global shortage of feedstock resulted from depleting resources in combination with a lack of investment in the industry in the past 20 years.

The past year (2011) turned out to be a year with two faces. TiO_2 markets in the first half of 2011 were as buoyant as in 2010, a year which had a record global demand. The year started out with strong momentum in the emerging economies, led by Brazil, Turkey, Russia and India. The second half of the year was characterized by strong volatility and several European countries were drawn back into territories of negative GDP growth as consumer confidence decreased further and austerity measures continued to be implemented.

In China, the government implemented measures to restrict the availability of credit to cool down an overheating property and housing market. These measures eventually worked their way down the supply chain and demand in China dropped dramatically. Overall in the fourth quarter of 2011, China's import volumes dropped by a massive 47 per cent compared to the second quarter of 2011.

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PAINT & COATINGS MANUFACTURING: TIO2

TiO₂ pigment is used predominantly in the production of high-quality surface finishes to impart opacity, brightness, and whiteness. TiO2 extends the life of the medium it is incorporated into, absorbing and reflecting ultra-violet radiation, which would otherwise accelerate the decomposition of the medium. However, TiO2's main attribute is to improve the aesthetic appearance of the product and, as such, TiO₂ is considered to be a quality of life product and consumption generally increases as disposable income increases. Five global producers make up more

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Global TiO₂ producers **DuPont, Cristal Global, Tronox, Huntsman and** Kronos make up more than 56 per cent of the global marketplace.

than 56 per cent of the global nameplate capacity: DuPont, Cristal Global, Tronox, Huntsman and Kronos. DuPont and Tronox operate only chloride route plants, the other global producers operate plants that use both sulfate and chloride route technologies.

The principal product of the mineral sands industry is titanium raw mineral used as feedstock for the production of primarily, (TiO₂) pigment and, to a lesser extent, titanium metal.

Of the TiO₂ feedstock mined and processed, more than 90 per cent is used in the chloride and sulfate methods of TiO₂ pigment production."

In July 2012, it was reported by industry sources that the outlook for DuPont's titanium dioxide (TiO₂) business remains good, despite a volume decline in the second quarter. TiO_2 markets became soft in the second half of 2011, but have slowly recovered since then sequentially, a trend that DuPont expects to continue.

Dupont reported that since TiO_2

demand historically tracks GDP growth, they anticipate only modest capacity additions to this market over the next four years, and they expect favourable demand conditions during that time frame.

DuPont's second-quarter sales volumes in its performance chemicals business, which includes TiO_2 and fluoroproducts, fell 10 per cent but is offset by a 9 per cent increase in prices.

Tronox is also not concerned about the previous year's "softness" of the TiO₂ market. The company's recent purchase of mineral sand producer Exxaro helped with this according to Tronox's second quarter results.

In Canada, Argex Titanium Inc. recently announced it has successfully completed the production scale up of high purity titanium dioxide (TiO_2) at its pilot plant in Mississauga, ON. Production capacity has increased from 0.3 kg/day to 10kg/day, a 3,000 per cent increase in production. This was achieved in two stages. First, the 3 kg/day capacity plant was installed and tested. A new 10 kg/day capacity plant was then constructed in an adjacent building. It uses a CTL chemical technology process. They can now produce more than three tonnes of TiO₂ per year from the Mississauga plant. The CTL process is a proprietary mineral extraction process that allows for the production of 99.8 per cent pure pigment grade TiO₂ product, which can then be sold to the end-users in the paint, plastic and coating industries. The process is unique in that it produces high-purity TiO_2 in a single location through a single process directly from the ore material. The equipment used in all parts of the process is known and readily available. The process is also environmentally friendly due to its high energy efficiency, low emissions and its closed-loop design, which uses relatively low concentrations of hydrochloric acid that is regenerated after use in the process.



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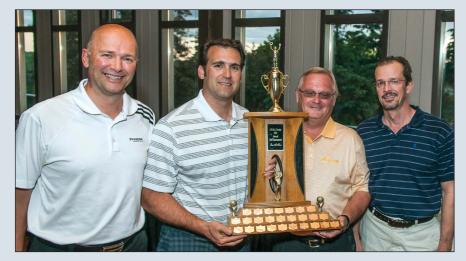
• DELTA, BC • CALGARY, AB • LEDUC, AB • WINDSOR, ON • MISSISSAUGA, ON • BRAMPTON, ON • MONTREAL, QC.

The TiO₂ market is no longer soft and producers are very optimist about future supply and demand.

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Women's Closest to the Hole: Christine Stevens, Sherwin Williams with Steve Nuyten.



Top Team: Steve Spurrell, Tremco; Mike Noel, Bway Corporation; Steve Waters, Andicor; Drew Taylor, Evonik



Top Mixed Team: L.V. Lomas Limited, Jake Jevric, Svetlana Melkova, Steve Nuyten, David Hicken..



Blind Shot Winner: Mark Mihevac - Cridel -Thermoset Resins presented by Kamlaish Mudhar, Univar.



Association News TOSCOT/OPA Golf The coatings industry was out in full force this summer.



Men's Closest to the Pin Winner: Judson Lew, Brenntag with Steve Nuyten.



Women's Longest Drive: Liz Wight, Home Hardware with Steve Nuyten.



Men's Longest Drive: John Graham, Chemroy Inc. with Steve Nuyten

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Photos by Pete Wilkinson

Association News

OCCO Almost Golf

The Oil & Colour Chemists Organization of Ontario (OCCO) held its 25th annual golf tournament at Nobleton Lakes, September 12, 2012 only to be rained out. The 70 slightly damp golfers cheered up after Dinner and a generous prize table.

Judson Lew was the lucky winner of the 50/50 draw.

Sunil Harricharan was the winner of the "Putting for Mike Dryden's Cash" contest with Neil Sykes taking second and Scott Mackie winning third after a 3 way playoff.

The OCCO Educational Scholarship was awarded to Cara Lew and Jacqueline Bajinski.



Scott Mackie strokes for the win in the 3rd place putt off.

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Mike Dryden, Sunil Harricharan and Bruce Clatworthy.



Mike Dryden, Neil Sykes and Bruce Clatworthy.



Judson Lew accepts the OCCO Scholarship for his daughter Cara Lew from Peter Simpson.

suppliers from around the world. Customers gain access to formulation assistance and product testing through supplier laboratories. Finally, we offer assistance in understanding and complying with Canadian regulations.

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Looking over the prize table.

Photos by Pete Wilkinson

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FIRE-FIGHTING

A fire retardant is a substance other than water that reduces flammability of fuels or delays their combustion. In general, fire retardants reduce the flammability of materials by either blocking the fire physically or by initiating a chemical reaction that stops the fire. In paint and coatings, ingredients are important, application technique is important and manufacturers continually make their products better in answer to customer needs.

PHYSICAL REACTION

There are several ways in which the combustion process can be retarded by physical action. Some chemical reactions actually cool the material down. Others form a protective layer that prevents the underlying material from igniting. While other fire retardants release water and/or carbon dioxide while burning, which may dilute the radicals in the flame enough for it to go out.

COMMON FIRE RETARDANT ADDITIVES

Commonly used fire retardant additives include mixtures of huntite and hydromagnesite, aluminium hydroxide, and magnesium hydroxide. When heated, aluminium hydroxide dehydrates to form aluminum oxide (alumina, Al2O3), releasing water vapor in the process. This reaction absorbs a great deal of heat, cooling the material into which it is incorporated. Additionally, the residue of alumina forms a protective layer on the material's surface. Mixtures of huntite and hydromagnesite work in a similar manner. They decompose releasing both water and carbon dioxide, giving fire retardant properties to the materials in which they are incorporated.

CHEMICAL ACTION

Chemical reaction within the fire can be interrupted by fire retardants. Generally, these retardants are organic halides (haloalkanes) such as halomethane and PhostrEx. However, there are situations where the released gas might be more dangerous when this type of retardant is involved. Some retardants break down polymers so they melt and flow away from the flame. Although this allows some materials to pass certain flammability tests, there is argument over if the fire safety is truly improved by the production of flammable plastic droplets.

THE FIRE

Just to present an idea of what a paint and coating needs to "retard", the work it has to do. This is what happens in a fire:

When a fire ignites it then spreads, experiences flashover, then total combustion. Flame spread takes the form of rapidly crawling fire tongues that lick across the surface of walls, ceilings, floors or supporting timbers. What governs the speed and intensity of flame spread is the character of the surface and whether the substrate itself is combustible. The travel rate of flame spread can be as high as 20 feet per second. The air in the vicinity gets heated, toxic gases are released, oxygen is used up and there is a large amount of radiant heat. Adjacent combustible materials - wood, wallboard, surface coatings ahead of the spreading tongues heat up and the flames lick further, spreading over a constantly wider area. As the flame spread progresses, the heated-up subsurfaces release great volumes of gases into the air. When this mixture of gas and air reaches a critical proportion - it ignites. The result is "flashover" – a great belch of fire, sometimes reaching the proportions of explosion. This flashover instantly uses up most of the surrounding oxygen and can raise temperatures to over 1000°F. Flashover - the combination of super heated air, depleted oxygen and sudden evolution of toxic gases - is often the chief culprit for so many deaths in building fires. It is followed by a steady burning, its speed of destruction depending on availability of drafts. This sequence of a fires progress shows how and why intumescent paints can help minimize damage.

INTUMESCENT

These types of retardant materials are being added to plastics, paint and coatings to protect wood, steel and many other surfaces. They cause swelling up behind the protective char layer, providing insulation behind the protective barrier. Intumescent coatings start turning to insulating foam at a temperature of 300°F - less than a hundred degrees higher than boiling water. The heat sensitive ingredients in the smooth coating rapidly react creating foam containing millions of tiny hollow cells. The smooth painted surface turns into a thick protective layer of insulation. The insulating foam keeps substrates from rapidly heating up to gas or flashover the destructive event that often puts fires "out of control". The frothed mass impedes flamespread and thus holds down smoke and evolution of radiant heat. In short, the fire-fighting foam delays rapid spread of flame and onset of total



burning. It forestalls rapid build-up of intense heat, heavy smoke and evolution of combustible gases. In fire tests, intumescent coatings have proven their ability to a fire within bounds until it can be extinguished. In actual fire, intumescent paints can minimize property damage and most importantly save lives.

Buckman Laboratories of Canada, Oakville, ON, carries various fire retardants, such as SEAL fire retardant choices for various substrates, wood fabric, metal, plastic, wood, paper and leather. Flame Seal is a Fire Retardant Technology Company that manufactures a wide variety of products and technology solutions for a number of diverse applications and industries. Their fire retardants are considered "green" and environmentally friendly. The products are water based, non toxic and are based on unique raw materials that allow for easy adaptation to diverse industries and applications.

Flame Control Coatings, Ajax, ON, says that fire retardant and flame retardant paint and coatings are used to provide additional time in a fire situation to exit a building and extra time for firefighters to do their job before the fire spreads. are available in white black and a wide selection of pastel colours and sheens.

APPLICATION

Professional building and fire inspectors know fire retardant coatings reduce flammability of interior or exterior surfaces to meet building or fire code requirements.

However, the coatings need to be properly applied to the required thickness and not substituted or thinned with other coatings.

Underwriters Laboratories (UL) is a preferred test facility because they provide a container label, which indicates a flame spread rating. For protection, the coating must be applied at the thickness at which it was tested in order to provide the rated fire protection.

To confirm the coating is applied correctly, establish the total sq ft of area to be coated and divide this by the required sq ft per gallon (spread rate) as indicated on the test report, to obtain the number of gallons required.

For example: area to be coated is 1200 sq ft and the spread rate indicated on the label is two coats at 300 sq ft per gallon per coat. Then 1200 divided by 300 = 4 gallons per coat x 2 coats = 8 gallons.

For carbon-based fuels, solid phase flame retardants cause a layer of carbonaceous char to form on the fuel surface. This char layer is much harder to burn and prevents further burning. Flame retardant coatings provide protection for structural steel so that buildings do not collapse in a fire. Flame control coatings retard flame spread and penetration of heat through their intumescences and synergistic flame suppressing action. On contact with flame or excessive heat, Flame Control Intumescent Fire Retardant Coatings decompose and puff up (intumesce) forming a thick, dense, spongy foam layer that checks flame spread and retards heat penetration. Their coatings come in paint and varnish. They

Some coatings may not indicate the number of coats, but only the required spread rate, 100 sq ft per gallon then 1200 sq ft divided by 100=12 gallons.

There are several environmentally safe ingredients that can go into fire retardant paint and coatings. Manufacturers work closely with regulation requirements for fire safety and are continually researching for even better solutions, so that perhaps one day paint can stop a fire before it even ignites.

IN THE NEWS and TECHNOLOGY

HERO Products announces the introduction of the 900-Series

HERO Products have introduced the 900-Series to the automatic dispenser product line. This range of models provides the largest volume canisters (over 23 quarts), with the smallest footprint of all machines in the category.

The introduction of the 900-Series fills out the current category requirements for the auto dispenser market and provides HERO customers with a complete range of auto dispensers, from the 100-Series, launched 2 years ago as the smallest fully automatic



Better protection. Safer chemistry.

Add better protection with Buckman's Flamebloc[®] GS series fire retardants

The Flamebloc GS series fire retardants comprise Buckman's new portfolio of environmentally responsible fire retardants designed to meet industry needs for green fire retardant technology.

Flamebloc GS products are composed of a new and novel technology based on amino functional ammonium polyphosphate chemistry.

These clear, water-based, zero VOC products do not require a halogen donor in order to provide charforming or intumescent substrate protection, meeting a host of standards and specifications required in many industries. dispenser in the market, to the new 900-Series, which touts the largest colorant vessels available in the market, aligned with the smallest modules, giving this product a competitive edge on two important fronts.

The HERO Products Group of ICTC Holdings Corporation, with its head office in Canada, is a 43-year old Canadian company primarily engaged in the design, development, manufacture and distribution of tinting and mixing equipment for the paint and coatings industry www.hero.ca

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Nordson Product Line Expansion Nordson Corporation introduces its patent-pending Break-Away Cyclone for powder coating applications. The Break-Away Cyclone incorporates a revolutionary design that enables the upper and lower sections of the cyclone to be disconnected and moved apart. Splitting the upper and lower cyclone sections helps make

it easier for operators to clean the interior surface with a compressed air wand.

Nordson is also launching a line of new non-electrostatic guns, stainless steel pumps and plural component metering systems for liquid applications. They complement Nordson's existing portfolio of airless equipment, rotary atomizers, electrostatic spray



guns, voltage blocking systems and nozzles, rounding-out a complete line of products for most any liquid coating need. The investment represents the largest liquid product line expansion to date and Nordson's commitment to the long-term growth of its liquid coatings business.

The newest additions to Nordson's liquid coating line include: Trilogy Non-Electrostatic Spray Guns: Encompass air assist air-

less, air spray and low volume/low pressure technologies. These guns incorporate the latest in design technology, providing excellent spray quality, the durability to withstand harsh manufacturing environments and ease of handling and maintenance.

StediFlo Pumps: With pressure ratios from 3:1 to 57:1, StediFlo pumps provide versatility and high performance to meet a wide range of pressure and volume requirements.

OptiMix Plural Component Metering Systems: High-performance pneumatic and electronic plural-component mixing and proportioning units process both solvent- and water-based paints, and are designed for flexibility and efficiency. www.nordson.com

Troy Introduces New Universal Mar & Slip Additive

Troy Corporation introduces the latest addition to its Z-Line of multifunctional, environmentally friendly performance additives: Troysol Z372. Z372 is a high performance universal mar and slip additive that improves the wetting of low surface energy and contaminated substrates, resulting in uniform film coverage. Engineered for solvent, solvent-free, and aqueous systems, Z372 improves resistance properties, gloss, and surface appearance in most systems. Z372 is well-suited for coatings and related products in which surface slip and/or resistance properties, such as block, stain or scrub resistance are required. Like all Troy Z-Line performance additives, Z372 is a zero VOC, HAPS-free, APE-free product formulated with renewable resources.

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Fischer DataCenter Software expands the functionality of the unit for convenient transfer, evaluation and printing of measurement data to personalized inspection reports

Conforms to DIN EN ISO 2178 Fischer Technology also raises electrical conductivity measurement of non-ferrous metals to a new dimension. The handheld SIGMASCOPE SMP10 measures electrical conductivity, i.e. how well a nonmagnetic metal conducts electrical current, which also provides information about its composition, microstructure and mechanical properties.



The SIGMASCOPE SMP10 is ideal for the production, processing or inspection of all non-magnetic metals such as stainless steel, copper and aluminum. It can also be used for measuring the hardness and strength of heat-treated materials, such as aluminum alloys, which is critical in aircraft manufacture and maintenance. Additional applications include measuring phosphor content in copper; monitoring deposition process, such as CU-Cralloys; and determining the degree of purity and verifying the homogeneity of alloys.

www.fischer-technology.com

Graco Launches Heavy-Duty Cordless Airless Handheld Sprayers

Graco Inc. announced another industry first for professional airless spraying with the introduction of XForce HD and ProShot HD heavy-duty cordless airless handheld sprayers. The battery-powered, portable XForce HD and ProShot HD allow a single-coat, high-quality airless finish to be quickly applied virtually anywhere. Built specifically for high-performance coatings such as epoxies and polyurethanes, the XForce HD and ProShot HD incorporate many time-saving features including ProConnect tool-less pump removal, Spray-N-Throw Material Cup System, and the FastClean design, which allows complete cleanout of material in less than 30 seconds, while using only ounces of solvent or water.

The new XForce HD and ProShot HD models feature patented and patent-pending ProSpray technology. This technology delivers professional spray results in the palm of your hand and makes every project fast and easy from set-up through clean-up.

Graco Inc. has also recently launched several new sprayers to round out its line of plural-component protective coatings sprayers. Graco XP Sprayers provide on-ratio, excellent quality for fast-curing materials and provide a quick return on investment for contractors who switch from hand mixing. Materials are proportioned by precision positive displacement pumps and mixed accurately and on-ratio at the mix manifold.

Engineered for high flow capacity, the new Graco XP50 is ideal for jobs requiring more volume. It allows the end user to spray with multiple guns or larger tip sizes and is rated at 4500 to 5000 nsi (210 to 245 har)

Buckman

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For more information call: In the U.S. 1-800-BUCKMAN (282-5626) In Canada 1-877-BUCKMAN or visit buckman.com 2010 Buckman Laboratories International, Inc.

New from Fischer Technologies

Fischer Technology's MMS NICKELSCOPE is a multi-measurement system using the Hall Effect test method for non-destructive coating thickness measurement of electroplated nickel coatings on electrically non-conductive or non-ferrous substrates as well as non-ferrous metal coatings (copper, aluminum, lead etc...) on steel. It is also ideal for measuring thick non-ferrous coatings. psi (310 to 345 bar).

Optimized for quick-setting hybrid and elastomeric urethane coatings, new Graco XP50 Quick-set Packages have a remote mix manifold with fluid pressure gauges and solvent valves for both A and B components.



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Paint Container RECYCLING

BY SANDRA L ANDERSON

There are Stewardship recycling programs in Canada, of which the Canadian Paint and Coatings Association and several companies and retailers are involved for used paint, but what about the containers? Metal paint cans in most cases are accepted in the curbside blue box if they are empty and clean with lids removed. Black plastic paint pails, which have because a popular alternative to metal, are recyclable too. Some manufacturers of these paint containers have found that the general public doesn't think that they are and therefore take them to the dump.

KW Container is one company that wants them back. They buy them back from customers and have a special division within their company, KW Plastics Recycling Division, just for that purpose.

"From our perspective, there is nothing wrong with a black plastic container," says Brian McDaniels, National Director of Sales for KW Containers. "We can't get enough of them. We want them all back." He says the biggest issue out there is collection of products that are not curbside. A plastic paint can is not something generally put in a blue box, but in some areas it is accepted. He says there was an issue in Canada many years ago stemming with mandates and the unavailability to find groups or companies to collect the plastic pails, so the public then may have perceived that they were not recyclable, but this was never the case and has since been resolved. As long as the items are polypropylene and polyethylene, KW wants them. They can be any colour, black included, and don't even have to be a KW product. "So no matter what kind of plastic...the public may not be aware that polypropylene is extremely valuable," says McDaniels.

and understand the value of it," says McDaniels. KW takes back containers, flattened and loaded by the truckload. The material is then melted -100 per cent recycled plastic that goes back into the automotive, battery and other industries.

"Almost every car manufactured in North America has our resin in it," says McDaniels.

As far as coatings customers who want to recycle, large store chains, such as Sherwin Williams, pull material back through their stores and ship it back in bulk form. The empty container gets back to service centre. Trailers pick it up and pay them for the material. In many cases the store chains take the material back to distribution centres where they are shredded or compressed for shipment.

"We are the recycler, we do two million pounds a day 360 days a year," says McDaniels. "We get the rigid plastic back. Molded products, we have processes for anything polypropylene."



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He says there should be no trouble getting them back as long as people know that there are multiple locations throughout North America that take them.

"There are groups that collect plastics

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PAINT & COATINGS MANUFACTURING: RECYCLING

KW does not have a recycling facility in Canada, it is in Troy, Alabama. However, the company has a large North American transportation network of 850 trucks.

"The product we get from Canada comes from recycling groups that collect it and get it into size reduced format," says McDaniels. "We will buy from anybody who has it available in transportable form."

He says there are several recycling groups in Canada the company buys from. "We do have several in Canada, but we would like to get a lot more," says McDaniels.

Capacity: KW Recycling's extrusion lines range from six-inch to eight-inch screws, with single and twin-screw extruder configurations. KWR's storage boasts five, ten-million-pound silos plus 18 storage and two computer controlled blending silos making the total silo capacity 56 million pounds.

KW Plastics Recycling, a division of KW Plastics, produces custom, premium post consumer resins. Since its inception the company has continually expanded extruder and silo storage capacity to meet growing market demand for its compounds. KW Container began making containers for the paint and coatings industry in 1998 with the introduction of a hybrid container that featured an all-plastic body. The container quickly gained acceptance by manufacturers who looked at the container not only as an alternative to antiquated metal containers, but a solution to industry concerns including container denting, product rust contamination and container leaks.

Today, KW Container is the world's largest supplier of plastic gallon, quart, pint and half-pint containers to the paint and coatings industry. KW's latest innovation is an all-plastic container made from a proprietary resin available only through KW Plastics. It is fill-line compatible and 100 per cent recyclable.

The company purchases scrap material throughout North America.

Not all paint container manufacturers recycle, but all would most-likely be open to the idea if customer's asked for it or, of course, if government regulations demanded it. John Roeleveld, VP Sales & Marketing at Andicor Specialty Chemicals says, "No we have not had any issues with recycling of pails. We do not take back empty pails nor am I aware of any customers asking us to do so." He says that their containers are recyclable though. "They could be recycled, they are just not recycled by us."

Tom Trumpler of Total Packaging & Sales says they don't recycle, but "do get questioned as to the recyclability of the





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containers we sell and they all are good for that." Trumpler adds, "It appears to me that, at least in Ontario, that this has all been downloaded onto the townships that you live in. I recently had a customer looking for a way to dispose of containers (steel pails) in Oakville and I simply advised him to check, as all districts are different." Trupler adds, "Having said this we tend to push our customers into the more recyclable containers."

There are several facilities that recycle steel paint and aerosol cans. The product needs to be used up so the container is empty. And as Trumpler says, each jurisdiction is different. In many cases paint cans, clean with lids removed, are welcome in the blue box.

Home Depot offers recycling services to all its customers in Ontario and Quebec, as do other chain stores. that blinks when the baler is full

- Simple control panel with easily understood pictograms
- Simplified baling process as the straps can be pulled directly through the main door
- Product is easily removed with the included dolly ejection system

BENEFITS include:

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- Safe & intuitive operation
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- Easily replaced strap rolls

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According to Natural Resources Canada, www.nrcan.gc.ca, "The recycling industry is constantly evolving and highly complex." The web site contains a long list of recycling industries in Canada.

Red Devil Equipment Co. offers the RC10 and RC20 balers that can compact the KW containers. They are also a solution for cardboard recycling.

The RC10 FEATURES include:

- Small footprint with low overall height
- Equipped with a "full" indicator light

The RC20 is larger.

When it comes to the recycling of paint containers, collection facilities exist, but it is important to check with your geographical location and curbside program and local retailer to see what exists in your area.

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IN THE NEWS and TECHNOLOGY

continued from page 38

The new Graco XP35 Plural-Component Sprayer is built for low-pressure airless spray applications (3500 psi/241 bar) and materials such as medium viscosity epoxies and slower-setting urethane topcoats. It is ideal for mix-at-gun materials.

The new Graco XP-h Hydraulic Plural-Component Sprayer is ideal for truck, palletized, trailer or flatbed systems that have onboard hydraulic power. The XP-h handles protective coatings, epoxies, urethanes and OEM traffic marking materials.

These new sprayers join the original Graco XP70 Plural-Component Sprayer, a high-pressure (7250 psi/500 bar) plural component sprayer for high-viscosity, high-solids coatings. www.graco.com.

New From MacDermid

Metex Elite 510 P represents MacDermid's latest in aluminum cleaning technology. Its state-of-the-art formulation combines the use of "micro-etch" technology with a unique surfactant system, making it an effective cleaner.

Silicate free means it leaves no hard to rinse silicate films. Caustic free to prevent etching most aluminum alloys when operated within recommended operating conditions.

It is REACH compliant and bio-degradable and its high tolerance to contamination means the bath has a long operating life. It is a highly effective cleaner which works on a wide variety of soils.

www.macdermid.com

New Af-Clean Surface Cleaner and Bio-Rust

WALTER SURFACE TECHNOLOGIES is pleased to announce the creation of AF-CLEAN, a new, environmentally friendly surface cleaner and degreaser designed to replace toxic solvents in the preparation and cleaning of metallic surfaces prior to treatment. This newest innovation from the company's Bio-Circle Environmental Solutions division underscores Walter's commitment to "Making Green Work". AF-CLEAN is the latest solution that helps create a cleaner, healthier, and safer industrial work environment.







Rust Blocker With Low VOC Content, High Flashpoint And No Odor Available

Dri Touch Amber is Birchwood Casey's rust blocker with low VOC content, high flashpoint and virtually no odor. It's the answer to today's environmentally conscious manufacturers who require a high level of rust protection for their products.



Rated for 100-150 hours salt spray and 600+ hours humidity protection, Dri Touch Amber meets water displacement test Mil-C-16173 and stain test Mil-C-22235A. With a 248°F flash point, Dri Touch Amber is effective in manufacturing plants that are under air quality restrictions and in areas with flammability hazards. The rust protection Dri Touch Amber provides is more than double that of other water-based products, according to Birchwood Casey, the manufacturer.

www.birchwoodcasey.com

BYK Additives & Instruments honors international project team with the "BYK Advance" innovation award

Regenerative, biodegradable, wax-like properties, and versatility - these were the key aspects that fundamentally convinced the team of jurors of the innovative strength of CERAFLOUR 1000.

The BYK additive is formed – thanks to biotechnology – with the aid of bacteria. It opens new perspectives for the use of biotechnology in the coating industry and can be applied in aqueous, radiation-curing, solvent-free and solvent-borne systems. This innovative product makes for efficient matting and at the same time involves a soft-touch effect. In addition, systems in which CERAFLOUR 1000 is used exhibit a high level of transparency as well as improved scratch resistance. www.byk.com

Arkema Introduces New Binder Systems for Cool Roof Coatings

Arkema has introduced new binder systems for use in cool roof coating applications. These systems are based on Kynar Aquatec PVDF binders, developed with Kynar Fluoropolymers of Arkema, Inc., and ENCOR flex polymers, developed by Arkema Coating Resins of Arkema, Inc.

Currently, three systems are available, allowing greater formulation flexibility across different applications:

New WiFi

DeFelsko is pleased to announce the addition of WiFi wireless technology to ALL PosiTector Advanced models. New WiFi features allow users to synchronize readings with cloud-based PosiTector.net, download updates with the latest features and functionality and wirelessly communicate with PosiSoft Mobile from any WiFi connected device.

Whether you need to simply print your readings or create customized reports, DeFelsko offers you maximum flexibility to manage your data: in the cloud, on your PC/Mac or on your mobile device.

www.defelsko.com/wifi

New SATAminijet 1000 K

SATA has introduced a new, particularly lightweight pressure fed gun designed for the manual

coating of small and complex parts. The SATAminijet 1000 K, can be connected via double diaphragm pumps, pressure pots or central material supply systems for greatest versatility.

Due to its compact and ergonomic design and its low weight, the SA-TAminijet 1000 K allows working without fatigue, even when being used on a long-term basis in industrial applications. In addition, it is an easy to operate gun, which can be very precisely adjusted.

This spray gun is available in the nozzle sizes 0.3, 0.5, 0.8, 1.0 and 1.2.

The SATAminijet 1000 K is available in optimised RP high pressure technology (Reduced Pressure = reduced atomisation pressure) which combines fast application speed with high transfer rates.

The SATAminijet 1000 is also offered in a suction cup version with 1.4 nozzle size for smaller surfaces. www.sata.com

A New Palm-sized, Cool-Running, **Hands-Free Light Source!**



Gardco introduces the new EK 3000 Eagle Eye Led Inspection Kit ideal for fluorescent magnetic particle and penetrant testing, mining inspection and a variety of other specialized applications. Compact, lightweight lamp with two ultra-high intensity UV-A (365 nm) LEDs for inspection, plus a three-LED white light

The Montreal, QC, company also announces the availability of BIO-RUST, a non-corrosive solution that eradicates rust on iron and mild steel. By providing workers with a safe, biodegradable alternative to traditionally hazardous, labor intensive processes, Walter Surface Technologies is delivering on its commitment to "Making Green Work."

Developed by Walter's R&D team, BIO-RUST can be used anywhere rust is present. For example, fabrication shops can use the solution to clean steel prior to painting or coating operations, while maintenance workers in the transportation and military sectors can use the solution to efficiently clean even the most intricate mechanisms – in a way that is safer for the earth, people and parts. www.walter.com

AC III Binder System – This system uses a Kynar Aquatec FMA-12 PVDF based topcoat and ENCOR Flex 187 all acrylic basecoat to provide Arkema's highest possible level of performance and durability. It is designed primarily for the most demanding cool roof coating applications.

AC II Binder System – Utilizing a proprietary ENCOR Flex 187 all-acrylic polymer. This base and topcoat system delivers excellent performance and meets ASTM D-6083, "Standard Specification for Liquid Applied Acrylic Coating Used in Roofing." AC I Binder System – This ENCOR Flex 3186 styrene acrylic system provides a good mix of performance and value for less demanding applications.

www.arkemacoatingresins.com and www.kynar.com

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