



# CFCM

CANADIAN FINISHING & COATINGS MANUFACTURING MAGAZINE

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## Nickel Plating



### Motorcycles, Automotive and More

All major automotive OEM's continue to embrace chrome/nickel and bright trim to enhance the look and value of their vehicles.

Kuntz Electroplating Inc. (KEI) is heavily involved in the automotive and motorcycle decorative nickel-chrome markets. Michael Kuntz, Vice President - Sales & Marketing, Kuntz Electroplating Inc. (KEI) is also co-chair of the Canadian Association for Surface Finishing (CASF).

He says, "Decorative nickel-chrome on motorcycles and automobiles is still growing, for example, "the North American International Auto Show (NAIAS) displayed more bright finishes and chrome trim than ever before."

Kuntz adds, "Harley-Davidson, a major customer of ours reported excellent earnings and growth this past quarter - they are the 'King of Chrome' (nickel!) and expect shipments of their motorcycles to rise 5-10 per cent this year to close to 250,000."

#### BRIGHT DESIGN CHALLENGE

The Canadian Association for Surface Finishing (CASF) and the National Association for Surface Finishing (NASF) sponsor a project every year called the Bright Design Challenge. The Bright Design Challenge (BDC) is a transportation design competition held at the College for Creative Studies (Detroit) that promotes the use of new and existing surface finishing technologies. Since its roots in 1999 as a small extracurricular student project, the BDC has grown to become a high-visibility OEM-sponsored project and a significant promotional event for CASF/NASF.

Charlene Shean-Jauch, Quality Engineer works with nickel plated products at Kuntz Electroplating Inc. (KEI).

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### ALSO IN THIS ISSUE

- Powder Coating Resins
- Low VOC Latex Paint Additives
- Toxicity Issues
- Nanotechnology in Plating
- Masking
- Nickel Plating
- New Products

**AND MUCH MORE!**

## MEETING EFFICIENCY AND DEMAND

### Trends in Powder Coating Spray Equipment

**IN POWDER COATING** applications, companies are being challenged to reduce costs while increasing efficiency and that comes down to their spray equipment.

Greg Taylor, Regional Sales Manager, GEMA says, "The Canadian industry is following the trend of reducing the need for massive inventories of products used for assembly, but still meet the high demands of production." He adds, "Reducing colour change times and associated costs, while still being able to recover all powder being used can create a large impact on bottom line cost reductions."

#### PRODUCTS

Powder Coating Spray equipment manufacturers meet the challenges with a variety of innovative products.

GEMA offers solutions to meet the needs of companies that utilize powder coating equipment.

"One of our very successful solutions is our Magic Series Powder booths, supported by the New OptiCenter," says Taylor. "This combination of equipment, coupled with GEMA's superior application expertise, maximizes the yields of reclaiming powder, minimizes colour change time to averages of less than 10 minutes, controls film thickness and reduces rework."

*continued on page 25*

### IN THE NEWS

#### Association News

**Canadian Paint and Coatings Association (CPCA) Names New President and CEO**



The CPCA Board has selected Gary LeRoux as the new President and CEO of the Association to commence on January 2, 2012. The Governance and Nomination Committee of the Board led an exhaustive search over the past several months with the recruiting firm of Odgers Berndtson and considered 30 possible candidates for the position.

"I believe the Board respected best practices in governance by engaging a professional selection process for the new President that

*continued on page 4*

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# Univar CASE Specialties

For almost 90 years, Univar has connected the paint and coatings industry with the world's premier chemical manufacturers, and has served Canada for over 60 of those years.

Established in 1924 as a local Seattle source for soda ash and a handful of related products, Univar has grown into a global chemical distributor, employing 7,000 people at 180 sites in North America, Europe, Asia-Pacific, the Middle East, Africa and Latin America.

Univar began serving Canada in 1950. Today, Univar Canada, Ltd. is Canada's leading chemical distributor, and serves Canada's industrial chemical and agricultural chemical needs from over 20 facilities coast-to-coast, from British Columbia to Newfoundland.

Univar supplies its CASE (Coatings, Adhesives, Sealants and Elastomers) customers with a comprehensive line of raw materials ranging from core products to specialty chemicals. Our extensive distribution network, global reach and unparalleled logistical expertise provide our customers a consistent and reliable source of supply.

We take great pride in maintaining close, hands-on relationships with our customers, linking them with the latest technologies and products, and with a commitment to deliver what they need to be successful. In today's rapidly changing regulatory landscape, our team of business development specialists can provide unique insights on new market opportunities and advanced product development, offering assistance with green and alternative formulations, including low-VOC.

Our commitment to the CASE industries includes:

- A knowledgeable team of technical specialists
- Real solutions to green formulation challenges
- Expertise in safety and legislation
- An extensive warehousing network and dedicated logistics

Univar is dedicated to delivering leading-edge application and formulation strategies to help you meet and exceed your goals. Our team of technical experts has over 120 years of formulating experience to help our customers with solutions to the problems that may arise in any stage of the production process — from concept and formulation all the way to commercialization.

We also offer our customers with a set of unique product selection tools, designed to help customers choose the right product for their application. The CASE Product Selection Guide gives a detailed overview of products we offer, and there are seven guides available, segmented by market focus and application: Architectural, Powder coatings, Epoxy, Polyurethane, Plastics, Robber and Low-VOC.

## Unsurpassed product line

Univar offers an extensive portfolio of products to the Canadian coatings, inks and adhesives manufacturing industry, representing the world's premier suppliers. The breadth of our product line is unsurpassed, including solvents, titanium dioxide, resins, dispersants, defoamers, biocides, surfactants, plasticizers, pigments and much more.

Our CASE product line includes:

- Adhesion promoters
- Algaecides
- Antiblock and slip aids
- Antifoams
- Anti-setting agents
- Biocides
- Block copolymers
- Coalescents
- Coupling agents
- Cross linkers
- Cure agents
- Defoamers
- Dispersants
- Epoxies
- Epoxy vinyl esters
- Functional Extenders and Fillers
- Flame retardants
- Flexibilizers
- Monomers, reactants and intermediates
- Pigments, opacifiers and colorants
- Plasticizers
- Polyols
- Resins, rosins and tackifiers
- Rheology modifiers
- Rust inhibitors
- Solvents
- Surfactants
- Thickeners
- Urethanes
- Vinyl esters
- Wax additives
- Wetting agents

## Services: Innovation. Expertise. Value.

Univar continuously refines its distribution business model to provide suppliers and customers with the highest level of service, reliability and timeliness of deliveries while offering cost-competitive products. We have several channels to market, including warehouse delivery and direct-to-consumer delivery.

## Product availability and inventory management

We manage inventory in order to meet customer demands on short notice. Our key role in the supply chain also enables us to obtain access to chemicals in times of short supply. Our global distribution network also permits us to stock products locally to enhance just-in-time delivery and provide outsourced inventory management to our customers.

## Blending and repackaging services

We provide our customers with a full suite of blending and repackaging services. Leveraging our technical expertise, we are able to utilize our blending and mixing capabilities to create specialty chemical formulations to meet specific customer performance demands. Additionally, we can fulfill small orders through our repackaging services, enabling customers to maintain smaller inventories.

Other available services include:

- Application development expertise
- Automated documentation (C of A, MSDS, Labeling, Bar Coding)
- Consolidated invoicing (summary billing)
- Custom blending
- Document control
- E-Blasts (new product introductions and market trends)
- Environmental and regulatory expertise
- Paint testing lab
- Private label packaging
- REACH advice
- Remote Sentry™ bulk tank storage monitoring
- Vendor-managed inventory

## Safety, health and the environment — our number one priority.

The highest priority in the conduct of our business is safety and environmental protection. Univar mandates commitment to this priority, requiring thorough compliance with our own stringent standards and all government regulations. We are committed to constant vigilance and continuous improvement.

Our operations are guided by the Distributor Code of Practice, the industry standard developed by the Canadian Association of Chemical Distributors (CAD). We participate in the Canadian Paint and Coatings Association (CPCA), Canadian Chemical Producers (CCPA) Responsible Care Program. Our major locations are registered to ISO 9002 standards. Our commitment to these codes and standards is paramount, and is stated in our Policy.

## Quality Policy

Univar is committed to contributing to the success of our customers, suppliers and partners by providing value-added products and services that consistently meet requirements.

Univar's Quality Improvement Process is a fundamental tool to achieve the company's mission and to focus on customers. The Quality Process is integrated into all aspects of the company's business practices. Quality is woven into strategic planning, training, and all the daily activities of our core work processes and the processes that support them.

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CASE Specialties



## CUSTOMERS DEMAND ENVIRONMENTALLY-FRIENDLY PRODUCTS. LET UNIVAR SHOW YOU HOW YOU CAN GO GREEN.

We partner with world class suppliers to connect you to new products and the latest technologies, while supporting 'green' initiatives. Our CASE Specialties group supplies a comprehensive line of sustainable raw materials and products that include: solvents, resins, dispersions, de-foamers, biocides and much more.

Our industry focused specialists have the experience and training to promote technically differentiated products. Consider Univar your partner to help you succeed in sustainable, innovative product development. Technical expertise, quality, knowledge — it all adds up to value.

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# What's NEW?

I ask this question all the time. Especially at trade show booths. Well, to answer my own question, the Year is New. By the time you read this we should be a little over a month into 2012 so it is now old news that the year is new. How is it going so far? I have decided not to look back at 2011 - we all know how that went in the industry. Meanwhile there is a lot of NEW on the horizon in every aspect of industry news.

A NEW in People is that Kamlaish Mudhar has stepped up to fill the shoes of Larry Ham as Manager Supplier Relations of Univar Canada. More in our People section.

A NEW in Technology is a new ASTM International standard that provides a test method for measuring volatiles from acrylate resins, which will allow suppliers to list emissions information on material safety data sheets. While ASTM D 7767 is now approved, development of the standard will be ongoing. More on that in Industry News.

A NEW in Company News is that Off Site Industries in St. Catharines has expanded again. We will have more on that in our next issue.

Anniversaries to celebrate this year, CFCM magazine is five years old. Yeah team!

Also, yours truly celebrates 25 years as a journalist. Yes, I started writing when I was 5.

Just a quick reflection to show you what goes around comes around, how your past can blend into your future... in 1990 I was hired by our current publisher Pete Wilkinson to edit two magazines that covered coin operated amusements and vending. I was editor of those magazines for just under 10 years. I counseled people against vending scams, I answered a lot of questions from Americans about the tremendous advantages in the vending industry of the dollar coin, the Loonie. When the \$2 coin came out I was there at its launch, personally invited to the festivities at the zoo (it was there because of the polar bears). I even got a T-shirt. I took to calling it the Twoonie in the pages of the magazines and it caught on, of course other journalists called it that too. Changing the coins means

a very pricey conversion for all those running coin operated machines, from vending (or as it is called in the industry "automatic merchandizing"), to laundry, to the machines that make and count the change. So now well over a decade later, the \$1 and \$2 coins are getting an overhaul and so is the coin-op machine industry. New versions of the coins made from steel will launch this spring, expecting to save taxpayers \$16 million per year. Meanwhile Canada's coin-op industries will have to fork out \$40 million in recalibration costs so their machines can recognize the new coins. The coins will only cost 4 to 6 cents to make compared to the current 30 cents. They will weigh significantly less. The mint produces about 30 million of each coin annually, and the government says removing the nickel element will reduce nickel demand by about 539 tonnes a year – only a small fraction of Canada's output.



The current \$1 is made from bronze-plated nickel, while the \$2 has a ring of pure nickel around a copper alloy centre. The new coins will use the same multi-ply plated steel technology used in the penny, nickel, dime and quarter.

The government says nickel prices have fluctuated by as much as 1,000 per cent in recent years creating both supply and cost issues, something the plating industry knows only too well.

This is just a sampling of "What's New" for 2012. We are also always interested in new industry writers. Some of the topics in upcoming issues this year are: UV Coating Formulation, Mixing and Dispersion Equipment, Adhesion, Low VOC Wood Finishes, Manual Liquid Paint Spray Guns, UV Curing, Testing Equipment, Vapour Degreasing and Precision Cleaning, TiO2, Flame Retardants, Powder Coating Quick Colour Change, Flat Line Finishing Systems, Pretreatment and Washing, Power Supplies and Rectifiers, Hard Chrome and Alternatives, Waste Water Control, High Performance Coating Manufacturing, Waterborne Resins, Paint and Solvent Recycling, Automatic Liquid Paint Spray Guns, Spray Booths and Filters.

If you have expertise, fresh new ideas or wisdom that you would like to share with our readers, please contact: [Sandra.anderson@cfc.ca](mailto:Sandra.anderson@cfc.ca)

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## IN THE NEWS

Continued from page 1

resulted in the best outcome for the Association," says Dale Constantinoff, President of General Paint Corporation and this year's Chair of the CPCA.

Chair of the Board Governance and Nomination Committee, Darrin Noble, Vice-President, Home Hardware Beauti-Tone, comments, "Despite the good quality of candidates, Gary LeRoux rose clearly to the top and was the unanimous first choice of the search committee, the outgoing Chair and the incoming Chair."

The CPCA notes that LeRoux has an intimate understanding of the coatings industry and a high level of respect and credibility within key government offices of Health Canada and Environment Canada.

Since graduating from St. Francis Xavier University with a degree in Political Science, and Carleton University with a Masters in Public Administration, LeRoux has developed extensive experience in both the public and private sectors including roles as the Executive Director of the Association of Canadian Port Authorities and Principal Partner of the Industry Government Relations Group. Dale Constantinoff further comments, "Gary has proven his abilities to anticipate and manage critical issues for industry and I look forward to working with him leading the CPCA, building alliances with government and ensuring a bright future for our members."

LeRoux graduated with distinction and

obtained a degree in Political Science from St. Francis Xavier University in Antigonish, N.S. In 1981 he graduated from Carleton University in Ottawa with a Masters degree in Public Administration. He managed a provincial campaign for a local Provincial politician gaining first-hand experience of the political process. He was a member of a number of Ministerial Advisory Boards assessing major capital works projects in Canada.

After graduation from Carleton LeRoux joined the federal government where he worked for several government departments in various capacities in organizational design and financial policy. During that time he gained an intimate knowledge of how government truly works from the inside. He was on a team of three that had the first Operational Planning Framework (known as Part III of the Estimates) ever to be approved by Treasury Board. He was also a member of a Task Force responsible for relocation of a federal government department.

In 1984 LeRoux left the federal government and joined the number one government relations firm in the country as a Senior Consultant. For 10 years he worked for a broad range of national and multinational corporations as well as national associations. He represented clients in key areas on the legislative, regulatory and procurement fronts. LeRoux has advised clients on how to successfully navigate complex legislative and regulatory processes in the areas of transportation,

health, oil and gas, telehealth, telecommunications, environmental regulation, financial services, high technology, economic development, international trade and government procurement. He is well versed in the ways of business and fully understands the complex public policy dynamic within the context of the federal government.

In 1992 LeRoux was a founder of the government relations firm called the Industry Government Relations Group (IGRG). While working as a consultant LeRoux also owned two prominent small businesses in the Ottawa area for 10 years. Over the past 10 years his firm acted as the Secretariat for the Association of Canadian Port Authorities where LeRoux led negotiations with all levels of government on major issues related to transportation, environment, security, supply chain, infrastructure and more. In that capacity he achieved considerable gains for the industry on files of national significance. Over the past five years he also represented the Canadian Paint and Coatings Association on key files related to all aspects of chemical management. In January 2012 LeRoux was appointed President and CEO of the Canadian Paint and Coatings Association after a five-month national search.

LeRoux has been a small business owner meeting a payroll; he represented major corporations and associations as a trusted public affairs advisor; he has been a federal government employee; he has experience as an association executive; he has

first-hand experience of the political process; and he has a strong educational background. He has proven that he can indeed bridge the gap between industry and government.

LeRoux has been an active volunteer in his community for the past 20 years engaging in fundraising work on behalf of a number of local causes including the Children's Hospital of Eastern Ontario; the Muscular Dystrophy Association of Canada; the Arthritis Society; Ronald MacDonald House; Cystic Fibrosis; and the Ottawa Heart Institute. He is a member of the Government Relations Institute of Canada.

### ECOAT 2012

ECOAT 2012 will be held April 10-12, 2012 at the Rosen Centre Hotel in Orlando, Florida. The Electrocoat Association and Products Finishing have announced March 11, 2012 as the early bird discount rate for ECOAT 2012.

### Five (5) things you will not want to miss at ECOAT 2012:

Thought-provoking Keynote Addresses: Matt Kirchner, American Finishing Resources, LLC returns to open the Conference with his discussion 'What Underperforming Finishers Don't Know (That Good Ones Do)'. Al Stimac, President of the Manufacturers Association of Florida will begin Day 2 with 'A Manufacturing Renaissance', looking at how manufacturing is reinventing itself to better compete globally.

## CORPORATE PROFILE

### DYNAMIX Blending Technology, Service and Value



Dynamix is one of North America's fastest growing manufacturer and supplier of metal finishing chemistry. "The philosophy at Dynamix is simple - enhance our customers' performance and profitability, while dealing with all of our partners in an open and honest forum."

The primary focus of Dynamix is the design and manufacture of specialty chemicals for the metal finishing industry, covering all aspects of metal finishing from anodizing to zinc plating. Toll blending, packaging and distribution of custom formulated products are also available.

We offer a service that encompasses all of our values with a highly skilled and motivated team. The laboratory at Dynamix is well equipped and able to provide analytical solutions specific to a particular sector of industry and/or customer. Products are designed at Dynamix to provide unsurpassed performance and solution economy. Superior chemistry is only the beginning, as the company realizes that technical and application knowledge are just as vital to the metal finishers' success.

Let Dynamix demonstrate how we can maximize your plating chemistry productivity by providing the most robust chemical processes available.

#### FUNCTIONAL COATINGS

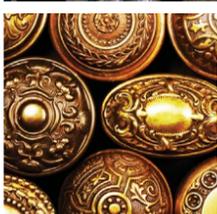
- Anodizing Chemistry
- Black Oxide Processes.
- Conversion Coatings.
- Copper Processes.
- Electroless Nickel Processes.
- Electropolishing Processes.
- Hard Chromium Processes.
- Phosphate and Phosphate free coatings.
- Tin Processes.
- Zinc and Zinc alloys, Chromates and Topcoats.

#### DECORATIVE COATINGS

- Copper/Nickel/Chrome Processes.
- Copper and Brass Processes.
- Bright/Dull/Satin Nickel Processes.
- Tin Processes.
- Antiquing Processes.

#### SPECIALTY PRODUCTS

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- Paint strippers for use on ferrous and non-ferrous substrates.



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## Dynamix

### Blending Technology, Service and Value

Dynamix is the largest Canadian owned manufacturer and supplier of metal finishing chemistry. Supplying automotive, aerospace, RoHS, ELV, WEEE and REACH compliant metal finishing products across North America.

### History and Experience

Partners Dennis Rogers, Charles Morris and Stewart Tymchuk established Dynamix in 2007 and over the years the business has adapted to the needs of the industry. Together they share over 75 years of metal finishing experience in real world plating facilities, which provides customers with a tremendous operational advantage. Their combined knowledge of technical service, research and development, manufacturing, ISO 9001:2008, marketing and sales, enables Dynamix to provide high quality products and cost effective opportunities to all customers.

### Our Philosophy

"The philosophy at Dynamix is simple - enhance our customers' performance and profitability, while dealing with all of our partners in an open and honest forum."

### Main Focus

The primary focus of Dynamix is the design and manufacture of specialty chemicals for the metal finishing industry, covering all aspects of metal finishing from anodizing to zinc plating. Toll blending, packaging and distribution of custom formulated products are also available.

### Distributing Partners

Dynamix understands that from a research and development perspective you can never be the best at absolutely everything. For those areas, Dynamix has partnered with some of the industry's best supply houses. Distributing products for their partners allows the supply of a wider variety of chemistries, including automotive and aerospace approved products.



### Our Strength

Dynamix's strength is in zinc plating, as the company has well over 200 zinc lines presently in service across North America. What sets the company apart from the competition is their ability to do their own research and development and manufacturing here in Canada.

Dynamix offers a service that encompasses all of their values with a highly skilled and motivated team. The laboratory at Dynamix is well equipped and able to provide analytical solutions specific to a particular sector of industry and/or customer.

The company has two locations, Markham, ON, and Montreal, QC.

Products are designed at Dynamix to provide unsurpassed performance and solution economy. Superior chemistry is only the beginning, as the company realizes that technical and application knowledge are just as vital to the metal finishers' success.

Please visit the Dynamix web site at [www.dynamix-inc.com](http://www.dynamix-inc.com).

Let Dynamix demonstrate how they can maximize your plating chemistry productivity by providing the most robust chemical processes available.

Ask a representative at Dynamix about their full line of proprietary products or enquire about a custom blended product. All products are developed with your business success in mind.

Contact DYNAMIX INC. today.

**DYNAMIX** Inc.

**Networking - Exhibit Room Style:** The Exhibit Room atmosphere enhances professional networking with industry experts in a relaxed and entertaining setting. Many suppliers will also display tabletop exhibits.

**Educational Programming:** Topics include 'Competing in Deflationary Times', 'Using a Zinc Rich Base Coat to Enhance the Performance of Electrocoat Finishes', 'Quantum Throughput Maximization (QTM)', and many others.

**Industry Awards Luncheon:** Honoring accomplishments and contributions of the George E. F. Brewer and Best End User Paper Award winners while networking and sharing a plated meal with industry partners.

**Coatings and Cocktails:** An extreme version of theme rotation as you move from topic to topic, table to table through an electrocoating process, asking experts questions about new products, new processes or even about your own system. Every aspect of your system process from masking to material handling, equipment to paint and chemistry to ultrafiltration, with a few custom coaters on hand for general business questions all while sipping a complimentary cocktail.

See [electrocoat.org/conference](http://electrocoat.org/conference)

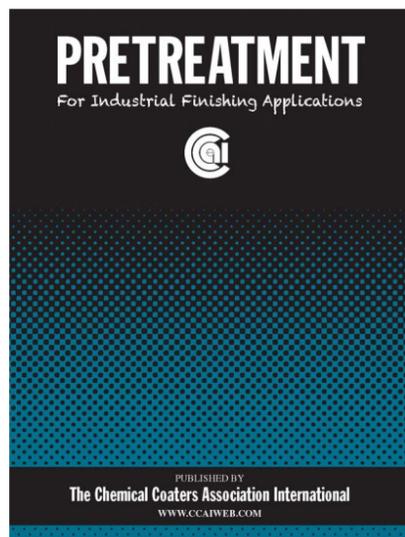
### North American Coatings Show Cancelled

The Powder Coatings Institute will return to a solo show format in 2012, after canceling the North

American Coating Show it had co-hosted for two years with NACE International.

PCI's new event, COATING 2012, will be held Oct. 9-11, 2012, in St. Louis—the same dates and location that had been slated for the NAI Coating Show with NACE.

### CCAI Releases NEW Pretreatment for Industrial Finishing Applications Training Manual



The Chemical Coaters Association International has just released a NEW edition of the training manual, Pretreatment for Industrial Finishing Applications. This coil bound manual is a guide to surface cleaning and conversion coating methods

used in effective industrial finishing operations. The new edition of the CCAI Pretreatment manual was reviewed and completely re-written to include information about current technology and methods for paint pretreatment. There is also a new chapter discussing the latest advances in pretreatment technology, Advanced Pretreatments. [www.ccaiweb.com](http://www.ccaiweb.com).

### FabTech Canada 2012 Tweets

Show floor exhibits aren't the only leading edge tools and technologies expected to create a stir at FABTECH Canada, the country's first exclusive fabricating, metal forming and welding event making its debut at the Toronto Congress Centre March 20-22, 2012. Emerging social media trends and innovative mobile applications will also be in the spotlight as show organizers embrace the latest in communications tools to deliver a state-of-the-art, interactive attendee experience.

"Our studies indicate that the more we can immerse show visitors into the overall experience, the more industry knowledge they will take away from FABTECH Canada," said Janine Saperson, Event Manager with the Society of Manufacturing Engineers (SME), which is hosting the inaugural event together with Fabricators & Manufacturers Association, Intl. (FMA) and American Welding Society (AWS). "By incorporating the hottest trends in mobile devices and social media, we're making it easier than ever for attendees to con-

tribute ideas, provide feedback, receive up-to-date industry education and get the most out of their show floor visit, with the added benefit of keeping our finger on the pulse of our industry at the same time," she said.

FABTECH Canada organizers are having regular on-line Twitter discussions. These moderated sessions are intended to engage audiences on key topics in the metal forming, fabricating and welding industries. Participation is as easy as signing into Twitter and entering "#fabtechcanada." The on-line forum is designed to take on a life of its own with topics of discussion determined by participant feedback. Additional social media outlets used by FABTECH Canada to engage industry members include Facebook, LinkedIn and YouTube.

Another innovative technology promising to take FABTECH Canada to new heights is the ability for audiences to take advantage of an optimized mobile application which can run on any mobile device, including cell phones and tablet PCs, and provides attendees with easy on-line access to the exhibit guide, conference agenda, and more. This application will allow visitors to personalize their trade show experience, receive alerts about conference start times, take notes during sessions and be notified about last minute show changes. A real-time audience response system also enables immediate feedback and can be used to facilitate on-line polls and surveys.

## CORPORATE PROFILE

## ElektroPhysik

ElektroPhysik is a leading manufacturer of measuring instruments used for advancing surface technology, research and quality control. Being a pioneer in the field of non-destructive coating thickness measurement, ElektroPhysik, in cooperation with national and international standardizing institutes and universities, has successfully advanced new product developments along with international standardization for coating thickness measurement.

As a privately held company, ElektroPhysik is owned and managed by the Steingroever family. It is headquartered in Köln Germany near the famous

Rhein River. ElektroPhysik still occupies the original building since 1952 though it has gone through many expansions over the years to facilitate growth.

ElektroPhysik maintains branch offices including in the U.S.A. and is represented by distributors and agents globally in almost every country and market in the world. It is this network and partnerships that enable ElektroPhysik to service its customers and provide the support required in today's competitive global marketplace.

In addition, ElektroPhysik USA Inc. is also the exclusive North American Agent for Sheen Instruments of England. Sheen Instruments Ltd. is a well respected manufacturer of viscosity testing products and devices, film application products, gloss and opacity testing devices and physical testing devices according to ASTM and International Standards.

To better serve the North American markets, ElektroPhysik maintains a North American website which is: [www.ElektroPhysikUSA.com](http://www.ElektroPhysikUSA.com).

ElektroPhysik is perhaps best known for the MikroTest coating thickness gauges utilizing the magnetic attraction principle. This gauge has been called the 'banana gauge' because of its shape and is strictly for non-magnetic coatings applied over steel. The MikroTest is perhaps agreeably the most widely utilized coating thickness testing gauge in the world.

Other brands include the MiniTest, eXacto, GalvanoTest and PoroTest which are electronic platforms for measuring coatings over both ferrous and non-ferrous substrates.

ElektroPhysik prides itself on its "sensor" technology and continually strives at advancing products in this area and recently developed SIDSP® digital sensor technology.

SIDSP® is an ElektroPhysik exclusive which took years of research and development. SIDSP® stands for Sensor Integrated Digital Signal Processing and the way that works is that the entire coating thickness measurement is processed in the sensor at the point of measurement. SIDSP® is unlike previous conventional techniques where an analog signal is generated by the sensor and then sent to a host gauge to processing. The vulnerability with that technique has always been that the analog signal is susceptible to environmental influences such as strong electro-magnetic fields and other signal disturbances that could affect the analog signal and therefore the reading.

SIDSP® is available in the MiniTest 70, 700 and 7000 Series.

The future for ElektroPhysik holds many challenges driven by globalization and increasing demands in the marketplace by customers to achieve even higher levels of quality in their products. There is no doubt Elektro-

Physik will be able to stand up to the challenges as it always has. Driven by the passion for the pursuit of new technologies and implementing them wherever possible is why it is often said; ElektroPhysik....advancing with technology.

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## IN THE NEWS

"As Canadian manufacturers continue to gain visibility as a critical engine for innovation, technology and economic growth, it makes good sense to foster that growth using the latest in communications technology," said Ed Youdell, FMA President and CEO.

"Social media, in particular, is a great way to build a sense of community within our industry," added Ray Shook, AWS Executive Director. "The more we can get people talking about issues of importance, the more innovation we are likely to see."

Featuring the most comprehensive showcase of the latest industry technologies, tools and trends geared towards the needs of this country's estimated 1.5 million manufacturing employees, FABTECH Canada is building on the success of the recent FABTECH event held in Chicago in November, which exceeded expectations with an attendance of more than 35,000. Canada's premiere industry event will feature an extensive exhibition floor, side-by-side machine evaluations, expert-led educational sessions, Canada's Best Welder Competition and many other networking opportunities.

For more information on FABTECH Canada 2012, to exhibit or to register for the event, visit [www.fabtechcanada.com](http://www.fabtechcanada.com). Show updates are also available on Twitter and LinkedIn.

About the Society of Manufacturing Engineers ([www.sme.org](http://www.sme.org))

The Society of Manufacturing Engineers (SME) is the world's leading resource for manufacturing

information and knowledge. With Canadian headquarters in Toronto, the society promotes an increased awareness of the value of manufacturing among industry professionals and the general public, while supporting educational initiatives and introducing career options for those entering the industry. For half a million manufacturing engineers, executives and members in more than 70 countries around the globe, SME is the source for knowledge, networking and skills development opportunities that help them advance their careers, their companies and their industries.

About Fabricators & Manufacturers Association ([www.fmanet.org](http://www.fmanet.org))

The Fabricators & Manufacturers Association, headquartered in Rockford, Ill., is a non-profit educational association dedicated exclusively to metal forming and fabricating professionals. Founded in 1970, it is considered the world's largest educational association for its industry, with thousands of members worldwide. FMA provides in-depth technical information and educational opportunities through conferences, award-winning magazines, extensive research services, and co-sponsorship of FABTECH.

About American Welding Society ([www.aws.org](http://www.aws.org))

The American Welding Society (AWS) was founded in 1919 as a multifaceted, non-profit organization with a mission to advance the science, technology and application of welding and allied

joining and cutting processes, including brazing, soldering, and thermal spraying. Headquartered in Miami, Fla., and led by a volunteer organization of officers and directors, AWS serves more than 70,000 members worldwide and consists of 22 districts with 250 sections and student chapters.

### Company News

#### US Moves to Halt Graco/ITW Deal

Federal regulators have moved to block an attempt by spray equipment giant Graco to take over its top competitor ITW, contending that the \$650 million deal would hand Graco a monopoly in the North American finishing market.

In a surprise announcement Dec. 15, 2011 the Federal Trade Commission said it had filed an administrative complaint and would follow with a federal-court action to halt Graco's purchase of ITW Finishing LLC from rival Illinois Tool Works Inc.

The deal would eliminate Graco's chief competition in the liquid finishing sector. ITW Finishing owns five of the industry's oldest, best-known brands:

- Binks (spray finishing equipment);
- DeVilbiss (the leading supplier of spray finishing equipment to the industrial and automotive refinish markets);
- Gema (powder finishing equipment);
- Ransburg (electrostatic equipment and accessories); and

• BGK Finishing Systems (curing technology).

The FTC complaint states that Graco's proposed acquisition of ITW threatens to harm competition for certain industrial liquid finishing equipment in North America and lead to higher prices for North American distributors and end users already struggling in today's economic environment. And it would also suppress product innovation, drive off any potential entrants to the industry, and harm manufacturing nationwide.

The FTC argues that the Graco-ITW deal would specifically harm these product markets:

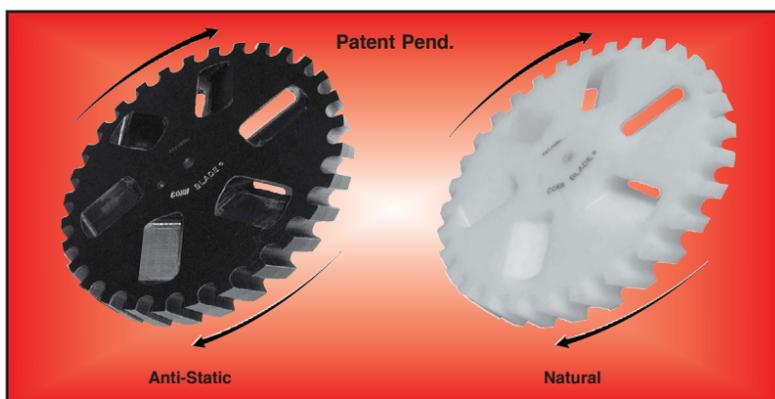
- Liquid finishing pumps for industrial uses;
- Liquid finishing spray guns;
- Proportioners, which mix and blend paint with catalysts and other liquids for industrial applications;
- Industrial liquid finishing equipment for resale; and
- Circulation pumps for paint systems in automotive assembly plants. The FTC issues a complaint when it has reason to believe that trade laws have been violated. The complaint is not a finding or a ruling. The commission said it also had voted unanimously to seek a temporary restraining order and preliminary injunction to stop the deal.

The acquisition plan, released in April 2011, followed a widely publicized brand realignment by ITW Finishing in March, when the com-

## CORPORATE PROFILE

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## Conn and Company

### Meeting Mixing And Blending Needs For More Than Half A Century

Conn and Company headquartered in Warren, PA, USA, has been designing and manufacturing industrial mixing equipment for over 60 years. Conn builds equipment to meet the customer's requirements with air or electric drive specifications to suit operating conditions; horsepower to suit service conditions; dimensional design to suit operating conditions or existing tank. The company firmly believes in keeping it simple, durable and functional.

Conn provides low shear blending blades or high shear dispersion blades or complete drive assemblies for processing fluid materials such as paints, adhesives, inks, cements, urethane foams, chemicals, slurries, grouts and more.

### The Conn Blades

Conn and Company recognized the need for blending blades and dispersion blades that provided true pumping action instead of plowing action. The company has brought four patented blades to the market under the trade name Conn Blade.

The ITT style blade has a combination of louvers and teeth. It is a high pumping high shear dispersion blade and is the most efficient and aggressive dispersion blade available.

The IT style has the louvers providing superior pumping action, but without the teeth. It is a

high pumping, low shear, blending blade and is excellent for mixing micro spheres or flakes or other fillers that need to be well mixed, but not destroyed. The ITC CONN Blade is an 8-vane open style blade providing excellent material flow, with more shear than the IT, but is not as aggressive as the ITT. The patented P-ITT CONN Blade is of UHMW Polyethylene and is excellent for highly corrosive or highly abrasive mixing. The P-ITT CONN Blade is the most efficient and aggressive poly blade available.

The Conn blades are available from 2" diameter to 48" diameter with mounting holes or mounting hubs to retrofit and upgrade a customer's existing equipment. Split construction is available for entry through manways. Conn also manufactures complete units and drive assemblies to mount on your tanks. Conn supplies air or electric utility/laboratory mixers, spool-type top entry for flange mounting to the customer's tank, and drive assemblies for mounting on bridge support for open top tanks. Conn and Company just needs the customer's requirements and will be happy to be of assistance.

Conn handles all worldwide sales from the home office in Warren, PA. Contact Richard C. Freeman at [rcfreeman@connblade.com](mailto:rcfreeman@connblade.com), call 814-723-7980 or fax 814-723-8502. Web site: [www.connblade.com](http://www.connblade.com)

pany rolled Binks, DeVilbiss, Ransburg and BGK into a new business unit called ITW Finishing Equipment Americas.

The United States is the world's largest market for paint spray equipment.

Graco said it would counter the FTC's litigation with its own and called the acquisition beneficial for end users and distributors.

A hearing on the FTC's administrative complaint has been set for May 15, 2012.

### Clariant Completes Squeeze-Out of Süd-Chemie Minority Shareholders

Clariant announced it has completed the squeeze-out of Süd-Chemie minority shareholders.

The announcement stated, "Süd-Chemie Aktiengesellschaft today informed Clariant LTD that the resolution agreed by the Shareholders General Meeting of Süd-Chemie Aktiengesellschaft, with regard to squeezing out the minority shareholders, yesterday became effective by registration with the Commercial Register."

The shares owned by minority shareholders have been passed by law to the majority shareholder, Clariant LTD. Clariant began its takeover of Süd-Chemie in February of 2011.

### Sika Acquires Coating Maker Duochem

Global structural materials conglomerate Sika AG has acquired Duochem Inc., a Canadian supplier of waterproofing coatings and membranes used to

protect parking decks and other concrete structures.

Switzerland-based Sika made the acquisition, effective Nov. 30, through its Quebec-based Canadian subsidiary, Sika Canada

### MPI to Move Coatings Test Lab to US

MPI, the Vancouver-based institute that establishes paint performance standards, will move its coating performance lab testing operation from its Canadian headquarters to KTA-Tator Inc., of Pittsburgh, PA.

The move to a U.S. lab reflects the fact that nearly 90 per cent of MPI's present testing originates with U.S. paint and raw material manufacturers.

MPI (Master Painters Institute) has tested proprietary coating products from industry suppliers in its own lab since 1995 to determine if products meet MPI's performance paint standards and should be listed on MPI's Approved Products Lists.

MPI will still make all decisions regarding the acceptance of a coating, based on the test data provided by KTA.

### Cappelle Pigments Names Distributor for Canada

Cappelle Pigments, Alpharetta, GA, has entered into an agreement with Ferguson Chemical Innovation to represent its pigment products in the Canadian market.

After a thorough search, it was determined that Ferguson would best fit Cappelle's commitment to grow within the Canadian market. Through Ferguson, Cappelle will enhance its market presence and improve delivery to customers within Canada.

Ferguson is a well-recognized entity in Canada, committed to serving the coatings, plastics, rubber and printing-ink markets. Cappelle Pigments will expand Ferguson's product portfolio to more fully serve these markets.

Cappelle Pigments is a fourth-generation family-owned company.

### Corrosion Thermoplastic Needs No Primer

DuPont Powder Coatings has teamed up with The Thermoclad Company, of Erie, PA, to provide a new line of thermoplastic powder coatings for corrosion protection.

Available throughout North America, DuPont ABCITE by Thermoclad has been formulated as a tough, chip-resistant finish that provides corrosion and UV protection without a primer. The coating can be electrostatically applied or fluid bed dipped.

ABCITE is based on DuPont's Surllyn resin, the same polymer used for the outer surface of golf balls. End-use applications include park and playground equipment, fence panels, balustrades, railings and light poles.

ABCITE has been approved for potable water

contact, although the manufacturer recommends consulting with local approvals.

The product can be applied with a one-pass coating process (no primer or curing required) by dipping or spraying. The VOC-free, halogen-free coating has a five-year shelf life, with no refrigeration required.

### TiO2 Price Hikes Boost DuPont Earnings

Price increases of nearly 30 percent on its lion's share of a key coatings pigment brought home record earnings for DuPont in 2011, despite declining sales volume. The world's largest producer of titanium dioxide saw 2011 earnings, before significant items, increase 20 percent, to a record \$3.93 per share, beating analysts' estimates.

Segment pre-tax operating income increased over \$100 million, or 18 percent, versus the prior year.

Much of that strong showing came from DuPont's Performance Chemicals business, including the Titanium Technologies unit.

### ALTANA Innovation Conference 2011: ALTANA Innovation Award for PVC-free sealing compounds used in packaging

A product of ALTANA's division ACTEGA has been awarded with the annual ALTANA Innovation Award. The award went to PVC-free sealing compound system, which are already successfully distributed under the brand name PROVALIN in the

## CORPORATE PROFILE

# Nordson

Nordson is a leading producer of industrial coating equipment that precisely applies and cures powder coatings, liquid coatings, sealants and adhesives in a broad range of industrial applications. Our products are designed to withstand the rigors of tough industrial environments, and all are backed with the support of unmatched finishing application expertise to help you solve even the most difficult problems.



From relatively simple manual systems to sophisticated, programmable, automatic recovery systems, Nordson powder coating application technology improves efficiency, flexibility and productivity for manufacturers worldwide. We provide a complete line of booths, automatic and manual guns, pumps, controls and ancillary equipment to meet most any application need. Our innovations include:

- Prodigy® HDLV® (high density, low velocity) technology, focusing on dense-phase powder transport and application of powder materials. This technology provides a softer spray at the gun tip, to move more powder with less air for reduced material consumption and even higher transfer efficiencies.

- The Encore® LT manual powder coating system incorporates a gun and controller that are easy to use and provide consistent, repeatable coating performance. Using Nordson's patented Select Charge® technology, the Encore LT system allows users to quickly select from a set of pre-programmed coating modes to assure maximum spray performance under a wide array of production conditions – including coating deep cavities, recoating and spraying metallic powders.

When it comes to liquid coating, no one knows more than Nordson. An industry leader for more than 60 years, providing electrostatic and non-electrostatic spray systems to apply liquid paints and coatings to a wide range of parts. Our innovative technologies include:

- Trilogy™ electrostatic spray system, a manual system that provides the highest kV in the industry (93 kV) for high transfer efficiency and reduced material costs;
- Production-proven, patented Nordson RA-20 and RA-20R rotary atomizers that deliver painting efficiency and superior finishing quality and operating safety for

a wide range of finishing application; and

- Iso-Flo® HD voltage block system for waterborne applications, providing enhanced reliability and performance for the application of electrostatically charged coatings.

Nordson is headquartered in Westlake, Ohio with manufacturing facilities throughout the world. Our global sales and service organization provides customers with support they can trust – with facilities for research and development, lab testing and technical support in more than 30 countries.

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\* Patent applied for.

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**52**  
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## CDS Cyanide Destruct Systems

CDS Environmental has recently expanded its presence in the precious metal refining and electronic scrap recycling industry.

Our unique program includes purchasing or processing of E Waste circuit boards and melting and assaying consumer jewelry scrap.

CDS is a highly recognized name synonymous with quality cyanide treatment and precious metal refining services. CDS Environmental, for example has imported waste from as far as Puerto Rico. CDS Thermal Hydrolysis Systems are being used in Lima

Peru and Singapore, just to give you an idea of our worldwide presence.

Definitely a niche player with a somewhat diverse market, CDS enjoys a very loyal and equally diverse customer base. Our success has been driven by entrepreneurial spirit and the flexibility to adjust rapidly to changing market demands.

Thermal Hydrolysis Systems are the foundation on which the company was built. The owner of CDS, a chemical engineer, worked with very well recognized research facilities and developed a keen interest in producing a practical system to utilize thermal hydrolysis.

Taking advantage of a safe, clean, chemical free process, thermal hydrolysis accelerates the naturally occurring chemical reaction between water and cyanide. Very simply, this system is the only way to effectively destroy cyanide in all forms including complex ferricyanides to below detectable limits. Systems are custom engineered for each application and are 100 per cent guaranteed. Both continuous flow and batch systems are available depending on the application.

Our Environmental plant located in Barrie, Ontario, serves generators of more concentrated type wastes using several batch systems. Precious metal (PM) refining of gold plated circuit boards, PM bearing solutions and various other PM products has been a staple of our business since inception.

More recently, CDS and The Environmental Quality Company based in York Pennsylvania as a joint venture have been operating a US based precious metal refining company, CD&E Refining.

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AkzoNobel Powder Coatings, the largest global manufacturer of powder coatings and a world leader in powder coatings technology, first established its presence in the U.S. and Canada by acquiring the powder coatings business of Ferro Corporation in August, 2002. After a number of years of success, AkzoNobel enhanced its position with the June, 2010 acquisition of the Dow Chemical Company's powder coatings activities which they had purchased in 2009 as part of its acquisition of the Rohm & Haas Company. These activities, as well as organic growth, have brought AkzoNobel to the #1 position in what is the single largest powder market in the world, and establishes an even stronger platform for servicing

all of our customers worldwide.

With our unique powder technologies and our complete global coverage, AkzoNobel is an ideal partner to any powder user, wherever its powder finishing facilities may be situated. Our powder coatings are supplied to eight key market sectors - appliance, architectural, automotive, functional, furniture, general industry, general trade coaters and IT. AkzoNobel Powder Coatings prides itself on being able to offer the widest selection of high quality powder coatings for all markets. We understand the requirements of the many technically demanding end uses of coatings and the Interpon range of powders provides a complete choice of products.

## AkzoNobel Powder Coatings

We also recognize that you, as an applicator or specifier of our products, need information to make the correct product selection. We're committed to creating long-term value for our customers through our vast array of products as well as superior technical service.

With our in-house capability in polyester polymer technology and our innovative, patented powder technologies, we are perfectly equipped to tailor our powder products to deliver unique technical solutions to our customers' needs. Our technologies are used in processes and materials, which together are designed to add value to our customers' products and processes.

As part of the world's biggest coatings company, at

AkzoNobel Powder Coatings we are proud of our commitment to sustainable and environmentally friendly products and technology. It's a serious commitment, and our objective is to remain in the top three in the Dow Jones Sustainability Index. We want to remind our stakeholders of the environmental benefits that Interpon Powder Coatings offer. Like us, many companies now have sustainability targets as part of their corporate goals and we are looking forward to helping them achieve this through the use of a green technology. The key aspects of choosing a coating are appearance, durability, cost and environmental impact, and we feel we can offer an optimum choice in each category. Interpon Powder Coatings contain no Volatile Organic Compounds (VOC's), generate less waste during application than liquid paints and advances such as particle management technology offer even further environmental benefits when compared with traditional powders.

We're proud of our environmental credentials and we feel "Every Color Is Green" underlines what Interpon is about. Literally speaking, every color is not green, but every single powder and every single color we produce is 'green' in the environmental sense. And that's worth shouting about.

But it's not just our products that are environmentally friendly. We are striving to constantly improve our sustainability record in every aspect of our company. An Acronym for Sustainable Materials Rating Technology, SMaRT is the major external standard for product sustainability. It's a carefully considered global certification that evaluates sustainability performance over a product's life cycle and supply chain. It can apply to any product, from any industry, but products receiving SMaRT certification have openly documented their performance over a number of sustainability indicators ranging from minimizing the use of natural resources, to reducing waste and carbon footprint.

In August 2011 we were awarded SMaRT Sustainable Platinum Certification, and we were the FIRST Coatings company to achieve a SMaRT certification. What's more, the Sustainable Platinum certification is the highest level a company can achieve.

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**AkzoNobel**

food packaging market. This innovation responds to the legislative requirements and demands of the market to withdraw the use of PVC-based sealing compounds and PVC-based coatings in food containers and packaging.

Almost 150 top researchers and developers of the specialty chemicals Group from all over the world came together at the international Innovation Conference held in Wesel to discuss technical and economic developments as well as future innovative trends.

## Xogen Recognized as a Canadian Cleantech Leader

Xogen Technologies Inc., an innovator in the wastewater treatment industry, today announced that it was selected for the preeminent Corporate Knights Next 10, a list representing Canada's best privately-held companies in the cleantech space. The Corporate Knights Next 10 is selected by an advisory panel of Canada's foremost authorities on cleantech, using four judging criteria: creativity and original approach, solving a business problem, clear business objective, and best chance of breaking through.

Xogen's patented technology is a new approach to the treatment of municipal and industrial wastewater. Funded in part by Sustainable Development Technology Canada (SDTC), an arms-length, not-for-profit corporation created by the Government of Canada, Xogen's technology is designed to address the acute needs in the rapidly growing multi-billion dollar wastewater industry.

Xogen's treatment process is odourless, and based on results to date, treats effluent more effectively than other technologies in the market today. Xogen's wastewater treatment technology is achieved through a single unit process that will reduce costs and allow emitters to comply with treated effluent regulations while occupying up to 75 per cent less space than what is required by conventional treatment systems. Xogen's advanced electro-oxidation and electro-coagulation process offers the ability to degrade Biochemical Oxygen Demand (BOD), ammonia, fats, oils, greases and petrochemical contaminants. Xogen's technology also removes suspended solids, phosphorus, pharmaceuticals and personal care products from contaminated water.

Xogen's process also produces a by-product of hydrogen oxygen gas that can be combusted to produce power. Treatment systems can be configured to utilize this power, and along with alternative energy sources can operate off-grid benefiting remote communities, mining camps and other locations. Alternatively, the hydrogen oxygen gas can be sold into an industrial gas distribution network to generate revenue. The solids produced from the Xogen process are inert and can be disposed of in landfill sites or used for other purposes.

Founded in 2002, Corporate Knights Inc. is an independent Canadian-based media and financial products company focused on clean capitalism.

## DSM Coating Resins Outlines Organizational Alignment

DSM Coating Resins, a business unit of Royal DSM NV, has outlined plans to align the organization with its sharpened strategic focus on its core coating and graphic arts resins markets. As part of these plans, the business unit aims to capture additional synergies from the merger of two business units (formerly known as DSM Powder Coating Resins

and DSM NeoResins) announced in 2011.

At the same time, DSM aims to further improve the financial performance of this newly formed business unit, which is necessary also due to the challenging economic circumstances and weak Building & Construction markets especially in Europe and North America.

As a result of the alignment, the number of worldwide positions at DSM Coating Resins will be reduced by 150. This will allow the company to effectively and efficiently continue to grow its position as the leading coating resins supplier for developing innovative building blocks for sustainable coating systems.

## PPG Reports Record Fourth Quarter, Full Year Earnings Per Share

PPG Industries (NYSE:PPG) today reported net sales for the fourth quarter 2011 of \$3.5 billion, an increase of 4 percent versus the prior year's fourth quarter. Net income for the quarter increased to \$216 million, or \$1.39 per diluted

share. Fourth quarter 2010 net sales were \$3.4 billion, and net income was \$205 million, or \$1.24 per diluted share.

PPG's annual sales for 2011 were \$14.9 billion, an increase of 11 percent versus 2010 sales of \$13.4 billion. PPG's full year 2011 net income was \$1.1 billion, or \$6.87 per diluted share, versus 2010 net income of \$769 million, or \$4.63 per diluted share.

## Arkema Coating Resins Launches The Customer Experience Group

Arkema Coating Resins has announced the formation of a new business function dedicated to building more proactive relationships with coatings formulators and other customers. The Customer Experience Group will be directly responsible for quality management as well as customer and business services.

Karen Fearington, the previous Business services manager for Arkema, will lead the group in her new position as director of customer experi-

ence. Fearington is directly responsible for developing goals and expanding resources to meet the needs outlined by both Arkema and customers. [www.arkemacoatingresins.com](http://www.arkemacoatingresins.com).

## Fischer Technology Opens Sales and Service Office located in San Mateo, California

Fischer Technology, Inc., the leading innovator of coating thickness, material testing, and material analysis instrumentation announces the opening of an additional sales and service office located in San Mateo, California. The "Fischer West" office run by Jim Bogert supports Fischer's complete line of coating thickness, material testing, material analysis and micro-hardness instrumentation. Service such as onsite re-certification of hand held coating thickness gauges and bench top X-ray fluorescence instruments including repairs and preventive maintenance is available from the Fischer Technology San Mateo location.

In addition to Fischer's San Mateo location,

## CORPORATE PROFILE

# Chemetall

With regional headquarters in Bramalea, ON, Chemetall Americas has been developing, manufacturing, and supplying state-of-the-art specialty chemical products since 1909, over 100 years, and is the second largest supplier of surface treatment chemicals in the Americas. The ISO 9001:2000 certified company offers 1500 specialized products and systems for more than 30 industries, including metal fabrication, aerospace, agricultural, appliance, microelectronics, architectural, automotive, coil, cold forming and other surface treatment-related markets. Furthermore, products and services are offered to non-metal industries such as food, pharmaceutical, plastics recycling, pulp and paper, latex, and transportation industries.

Chemetall Americas supports you from product specification through disposal. And the commitment to its family of customers is unsurpassed in the industry. Supported by a staff of highly-trained, technically-oriented field personnel, Chemetall Americas' customers know they're receiving the highest level of customer service available.

### Products

Chemetall Americas' integrated products, chemical management systems, process equipment (dispensing, controlling, and monitoring), and service programs facilitate many processing needs. From time tested cleaners, iron, zinc and manganese phosphates, rust preventives, paint strippers and paint detackifiers, to the latest in low temperature, chrome-free, and phosphate-free technologies, Chemetall Americas has the solution for your every need.

### "Green Technology"

As a World-Class supplier, Chemetall is concerned about the environment, our customers' process quality, and cost savings. To this end we can provide "green" products in the following application areas:

### Low Temperature/Energy-Saving Cleaners and Coaters

- Non-Petroleum/No Oil Metalworking Fluids
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- Non-Oil/Worker-Safe Rust Preventives
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Fischer Technology also has sales and service centers in the Midwest (Chicago area) as well as at Fischer's headquarters in Windsor, CT.

## Celanese Completes Acquisition of Product Lines from Ashland Inc.

Celanese Corporation a global leader in emulsion polymers, today announced it has completed the acquisition of certain assets from Ashland Inc., including two product lines, Vinac and Flexbond, which will support the strategic growth of the Celanese Emulsion Polymers business. Terms were not disclosed. Celanese announced its agreement to acquire the assets in November 2011.

"This acquisition will accelerate the growth of the Emulsion Polymers business in the Americas region," said Phillip McDivitt, general manager, Celanese Emulsion Polymers. "As we begin integrating these businesses into our product portfolio, we look forward to servicing our new customers and working with them to ensure a smooth transition."

## Royal Adhesives & Sealants to Acquire Craig Adhesives & Coatings

Royal Adhesives & Sealants (Royal), a portfolio company of Arsenal Capital Partners (Arsenal), and Vertis Communications (Vertis) announced that Royal will acquire substantially all of the assets of Vertis' indirect wholly-owned subsidiary, Webcraft Chemicals, which operates under the name Craig Adhesives & Coatings (Craig). Based in Newark, NJ, Craig is a supplier of ultraviolet light-cured and water-based adhesives and coatings to

the printing and graphic arts markets. The acquisition builds on Royal's strong platform of adhesives, sealants, and coatings and allows clients of both companies to benefit from an expanded range of customized and proprietary solutions. For Vertis, the sale provides additional opportunities to pay down debt and invest in the cross-media solutions that will drive its continued growth. The transaction includes a long-term supply agreement between Royal and Vertis, which allows Vertis continued access to Craig's specialized products.

## Industry News

### Canadian Researchers Report Advance in Paint-on Solar Cell Technology

A nanotechnology discovery led by a team of University of Toronto researchers has produced a paint-on solar cell, the size of a postage stamp, with potential to harvest the sun's energy to power buildings, computers and handheld mobile devices. It is also reported that inexpensive reproductions could be installed across deserts to create huge solar farms.

The solar cell technology involves low-cost fabrication methods such as spin-casting and spray coating of semiconductor nanoparticles onto arbitrary surfaces. Quantum dots are painted on the small solar cells. The dots can capture energy from light, including infrared light, and convert it into electricity much like semiconductors in traditional solar panels. The dots could eventually be mass-produced and layered onto flexible materials

that could be used to coat anything. The dots' size, colour and type of light they absorb can be manipulated.

The first paint-on solar cell to harvest the sun's abundant infrared rays appeared in 2005, but the research team has increased the efficiency "several thousandfold."

Today, solar electricity supplies less than 1 per cent of the world's energy needs, but forecasters believe solar energy could hit 15 per cent or more by 2030 with this new technology.

### Sign Up for the CFCM Buyers Guide

It is that time again—a new year, a new listing. Every year, after the Buyers Guide is published in July, CFCM receives several emails and phone calls from companies asking how they can be included. Our Buyers Guide is online. Go to <http://www.cfcmercuryemail.com> and click on "add new listing," follow the instructions and include your information. In time for a July release we will use all the online information for our printed Buyers Guide. Don't miss the boat. Sign up today.

### Strike Out Arthritis in February

Bowl a strike and help spare the pain of arthritis.

The Strike Out Arthritis Coatings & Plastics Industry Charity Challenge takes place on Saturday, February 18, 2012, 11:30 a.m. to 4:00 p.m. at ClassicBowl 3055 Dundas St. W. Mississauga L5L 3R8.

For more information, please call 905.455.6273, ext. 221 or 1.888.434.0009, ext. 221.

### U.S., Canada Adopt 'Common Platform' for Measuring Building Energy Efficiency

The U.S. Environmental Protection Agency announced an agreement with Natural Resources Canada (NRCAN) that will create a "common platform" for measuring and assessing the energy performance of commercial buildings in both countries.

EPA said the agreement will harmonize the approach of the two countries by enhancing EPA's existing Energy Star Portfolio Manager software tool to track and rate the energy performance of Canadian commercial buildings, in addition to buildings in the U.S.

President Obama and Canadian Prime Minister Stephen Harper established The Clean Energy Dialogue to strengthen collaboration on clean-energy technology and innovation. Canada and the U.S. are accelerating the transition to a clean energy economy while enhancing energy security and revitalizing the economy by creating jobs in this emerging sector, according to the EPA.

The Portfolio Manager tool provides governments with "solid, measurable information on energy savings and greenhouse gas emissions reductions from commercial buildings," the agency said.

Through the agreement, EPA states that important enhancements will be made to Portfolio Manager (a database of more than 250,000 buildings, representing nearly 27 billion square feet of commercial and institutional building space in the U.S.), including the development of a Canadian-based energy performance scale and the addition of Canadian reference data (weather, energy and emissions factors and metric units). The tool will also be available in both official languages of Canada.

[www.energystar.gov/buildings](http://www.energystar.gov/buildings)

[www.oee.nrcan.gc.ca/corporate/buildings.cfm](http://www.oee.nrcan.gc.ca/corporate/buildings.cfm)

### Chevrolet Impala planned for 2013 Oshawa production

The new Impala will be produced at the flex plant, which currently makes the Chevy Camaro, Buick Regal and soon, the Cadillac XTS.

A new generation Chevrolet Impala will start production in Oshawa in early 2013, according to a recent announcement by General Motors of Canada (GM).

The production involves a \$68 million investment and 350 jobs.

It has been reported that subsidies and credits during the 2008-2009 economic downturn saved 5,200 jobs in the Canadian auto and auto parts industries. The federal and Ontario governments pledged \$4 billion in emergency loans to the auto industry approximately three years ago. GM's Oshawa operations have seen several positive changes within the last year including new vehicle models and expanded production that has added two new shifts and 1,300 jobs. In August, GM announced a \$117-million investment to prepare the plant to build the new Cadillac XTS which secured 400 jobs.

### The Scarcity of minerals and Metals Slows Supplies for Seven Core Manufacturing Industries

A majority of industries (77 per cent) consider minerals and metals scarcity a pressing issue causing stress for their suppliers, according to a new global study of manufacturers from PwC. The seven manufacturing industries most impacted are infrastructure, high-tech hardware, automotive, renewable energy, chemicals, energy and utilities, and aviation, with the highest concerns in the infrastructure, high-tech and automotive industries.

The report, Minerals and metals scarcity in manufacturing: A 'ticking time bomb' surveyed 69 senior executives in seven different manufacturing industries across the Americas, Asia Pacific region and Europe. According to the survey, 83 per cent of respondents indicate their suppliers consider minerals and metals scarcity an issue and 61 per cent believe their customers are taking the issue seriously. In North and South America, over half of the respondents believe the government is aware of the shortage and its ramifications.

Most regions and industries globally view an increase in demand as the primary cause for minerals and metals scarcity (84 per cent), followed by geopolitics (79 per cent) and extraction shortages (73 per cent). The impact of growing demand is highest for suppliers within the infrastructure industry.

Risk arising from minerals and metals scarcity is expected to increase across all industries in the next five years. Industries within the renewable energy (78 per cent), automotive (64 per cent) and energy and utilities (57 per cent) sector are currently experiencing instability of supply.

Respondents from the automotive sector (82 per cent) have the most positive outlook when it comes to finding opportunities over the next five years in the midst of a metals and minerals shortage. Overall, 43 per cent of respondents across all industries view scarcity as a current opportunity, while 59 per cent of respondents say the opportunity will grow in the next five years.

Europeans remain the most optimistic with 58



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per cent perceiving an opportunity at hand, whereas only 35 per cent of respondents from North and South America sense potential for good prospects. Data information, recycling technology, substitution technology and regulation are all considered required elements of any response to the issue of minerals and metals scarcity. [www.pwc.com/resourcescarcity](http://www.pwc.com/resourcescarcity).

## Cabinet Makers and Custom Woodworkers Looking Ahead in 2012

According to the Cabinet Makers Association based in the US three of four woodworkers (76 per cent) say that they are feeling more optimistic about business prospects in 2012, with only 13 percent expecting a decline. Two out of three (67 per cent) custom woodworkers reporting their businesses grew in 2011 (with over half – 58 per cent – reporting growth of over 15 per cent). These are the initial findings of a new industry benchmarking survey being conducted by the Cabinet Makers Association (CMA), to be released later this year.

The goal of the study is to provide custom woodworkers with a set of benchmarks they can use to compare and manage their businesses.

## New Standard for Testing Acrylate Resin Volatiles

A new ASTM International standard provides a test method for measuring volatiles from acrylate

resins, which will allow suppliers to list emissions information on material safety data sheets. The new standard, ASTM D 7767, test method to measure volatiles from radiation curable acrylate monomers, oligomer, and blends and thin coatings made from them, is under the jurisdiction of Subcommittee D01.21 on Chemical Analysis of Paints and Paint Materials, part of ASTM International Committee D01 on Paint and Related Coatings, Materials and Applications.

Before this standard there had been no direct method for measuring volatiles from formulations sold to end users that were applied and cured as thin coatings, especially coatings with known interferences such as digital inks containing pigments. Formulators can now use D 7767 to generate volatiles data for product material safety data sheets.

Companies that purchase acrylate raw materials to make UV-curable blends for hardcoat, overprint varnishes, digital inks and other commercial applications will now be able to look at material safety data sheets and see what the volatiles level from the various monomers and oligomers used in a formulation are, since the volatiles data may be different for the same material from two different suppliers.

While ASTM D 7767 is now approved, development of the standard will be ongoing, and all interested parties are invited to contribute to D01.21's standards developing activities.

## Canadian Manufacturers Want to Hire

## But Can't Find the Right People

Bullish on growth and capital spending, squeamish on the availability of skilled workers

Half of Canadian manufacturers who responded to PwC's new third-quarter 2011 Manufacturing Barometer study said they expect positive hiring over the next 12 months. Only 5 per cent reported they are planning to reduce their workforces, resulting in a net workforce projection of plus 1.2 per cent over the next year.

But growth in the mining, energy, and aerospace industry can be a double-edged sword for manufacturers, helping to explain why 45 per cent said that the lack of qualified workers was a significant barrier to their growth.

Of the 50 per cent of companies looking to hire within the next 12 months, the most sought after employees will be professionals/technicians (45 per cent), followed by skilled labour (26 per cent).

PwC's Manufacturing Barometer is a quarterly business outlook study and includes 38 Canadian-based manufacturers. It provides a 12-month outlook for revenue growth, M&A, new investments, hiring plans, emerging business trends, together with an outlook for US manufacturers.

## 2012 Architectural and Automotive Paint Trends 2012 Sees Red

Take-charge optimism will take hold in 2012, according to a colour trend analysis completed by AkzoNobel. Drawing on a variety of cultural

sources and influences from art, technology, nature and popular culture, AkzoNobel's "colour psychologists" named a lively juicy Red (Terra Cotta Rose) the 2012 Colour of the Year.

According to AkzoNobel, Red is a powerful mood modifier, reflecting passion, power and festivity in Western societies. Children prefer it to other colours, while adults are attracted to those who wear red in public, says the analysis.

## White is Favourite Colour for Automobiles, According To PPG Data

White has ranked as the most popular vehicle colour in the world according to data from PPG Industries, the world's leading manufacturer of transportation coatings. Approximately 21 per cent of 2011 model-year cars around the world have been white. Silver and black were tied for second most popular at 20 percent.

In North America, white was first (20 percent), silver was second (19 percent), black was third (18 percent) and gray was fourth (15 percent). Red and blue were tied for fifth (9 percent), naturals such as browns, tans, golds, oranges and yellows were sixth (7 percent), green was seventh (2 percent), and other/niche colors were last (1 percent).

PPG presented automotive designers with 70 new exterior shades for consideration in their designs of the 2014-2015 model years. These included colours such as Goldeluxe, a silver with

## CORPORATE PROFILE

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[www.toscot.org](http://www.toscot.org)

## TOSCOT

The Toronto Society for Coatings Technology (TOSCOT) was formed in 1919. Originally named the Toronto Club of Paint and Varnish Superintendents, the group first met in March and has since developed into an important source of technical information for the local coatings industry.

TOSCOT was one of the founding societies of the Federation of Societies for Coatings Technology (FSCT), which has merged with the American Coatings Association. TOSCOT provided the first international FSCT president, Gordon C. McEwan, who had much to do with shaping the direction of the Federation during his 1926-27 term. Since his tenure, six TOSCOT members have served as President of FSCT: Eugene E. Sparrow (1923-33); Joseph W. Tomecko (1957-58); William Dunn (1975-76); A. Clarke Boyce (1982-83); Kurt F. Weitz (1990-91); and finally, David Jack served as 81st president of the FSCT (2002-2003).

In 1994, the Toronto Society for Coatings Technology celebrated its 75th anniversary. At that time, a historical account of the group was developed. Some of the highlights reported in this account, prepared for the Toronto Society by Coatings Magazine, reveal a Society that has evolved over the past 75 years, much like the industry it represents.

One of the hallmarks of TOSCOT in its early years was the unbridled enthusiasm of the group. Despite this, early meetings were marked by low attendance. Even if eligible members wanted to attend, they were often forbidden by their employers. The times and developing technology had much to do with this attitude. Paint chemists had only recently come into an industry that until then had been all art. One prominent company manager went firmly on the record at a Canadian Paint, Oil, and Varnish association meeting stating: "We never had problems in the paint industry until we let the chemists in."

The TOSCOT founding fathers quickly hit upon a successful format that has changed little in the intervening time since inception. The club held regular monthly meetings, from September until June, with invited speakers presenting the latest technological develop-

ments of the time. In those early years, it was felt that the annual \$2.50 membership fee paid off for members many times because the club heard speakers tell of the development, uses, and potential of new technical revolutions that were to pro alter the face of paint production.

Although many changes have occurred in the industry over the past years, the vision of the Toronto Society remains the same. TOSCOT's dedication to the advancement of the coatings education has resulted in significant accomplishments not only at the Society level but for the Federation as well.

Milestones include hosting 160 people at the Federation's ninth annual convention in 1930 to welcome over 7800 attendees to the FSCT Annual Meeting and Paint Show in 1991. Educational courses, award-winning technical presentations, and successful seminars have been sources of pride for the group.

Above all, the success of the Society was attributed to the many volunteers who have served throughout the years. Two of these volunteers were A. Clarke Boyce and Walter Fibiger who together created the Diploma in Coatings Technology course that has been facilitated at both George Brown College in Toronto and the Mississauga City Library. Consolidation of the Toronto area coatings manufacturing sector has forced TOSCOT to make some hard choices regarding sustainability.

In early 2012 we will launch the online version of the diploma course and complete the process of merging with the Canadian Paint and Coatings Association and be reborn as its education committee. This ensures that the vision that the courses cofounders share with the TOSCOT board will live on and prosper. The Diploma in Coatings Technology course will continue to educate those in the coatings industry beyond the boundaries of Toronto and time. For all those over the years who have made TOSCOT what it was and will now be, a hearty thank you. News regarding the completion of the merger, branding and further details will be available in the next issue of CFCM.

Dave Saucier, TOSCOT Chair.

an influence of a gold; White Nougat, a soft creamy white with a highlight sparkle; Muddy Waters, a tone of brown with a pearl luster effect; Grape Spritz, a blue fused with a purple highlight; and Pot O'Gold, a light green with a hint of gold. PPG also recently completed an online study of consumer opinions regarding the importance of coatings and colour as they relate to new car purchases. Some key findings of the survey are:

48 per cent of the automotive consumers who responded said they generally choose products based on colour.

77 per cent of the automotive consumers said exterior colour was a factor in their automotive purchase decision.

Vehicle colour is an important factor in the choice of vehicle, according to 30 percent of the automotive consumers.

The same percentage – about 31 per cent – of the automotive consumers said they are willing to pay extra for a vehicle that expresses their personality through colour.

Owners of large luxury cars, sporty cars and large premium SUVs said they are willing to pay the most extra get the colour of their choice.

40 per cent of the automotive consumers said they would prefer a wider range of colour choices.

In addition to colour trend forecasting, PPG is continuing to develop new paint technologies that offer automotive design options to enhance

appearance and help automobile manufacturers differentiate their brands. For example, matte finishes have become increasingly popular at automotive shows. A matte finish eliminates the glossy sheen and light reflections on painted surfaces. It is a low-gloss finish to the vehicle's paint that does not reflect as much light as a traditional glossy clearcoat finish. The matte effect enhances the lines of the vehicle and gives a satin, or anodized, high-tech look that defines the shape of the vehicle's body. Matte finishes have become popular on niche vehicles such as premium sedans, sports cars and limited editions.

### White, Silver Most Popular Car Colours in the World According to DuPont

White/white pearl has emerged as the fastest growing colour to tie with silver as the world's leading automotive color choices, according to the 2011 DuPont Automotive Colour Popularity Report. A substantial increase in the popularity of white/white pearl globally in 2011 has enabled it to surpass longstanding rivals black and gray, to join silver at the top of the world colour ranks in this year's report. The DuPont report, in its 59th year, is the longest running and largest of its kind in the industry, includes automotive colour popularity rankings and regional trends from 11 leading automotive regions of the world.

[www.dupont.com](http://www.dupont.com).

## Pricing Updates

### U.S. Zinc Raises Prices for Zinc Oxide and Zinc Dust

Officials with U.S. Zinc announced that effective December 1, 2011, it will raise its zinc oxide and zinc dust prices in North America by 5 to 7 per cent, where allowed under contractual terms. The price increase is the result of ongoing increases of metal premiums in the market, along with rising packaging and inbound freight costs.

### IMERYS Performance Minerals North America Raises Prices

Imerys Performance Minerals North America announced price increases of 4-10 per cent. The increases are effective December 1, 2011, subject to any provisions in individual contracts, and will affect all calcium carbonate, kaolin and mica products. The energy surcharge will remain in effect.

### Troy Corporation Announces Price Increase for IPBC Products

Troy Corporation has increased global prices for various IPBC-based biocide products of 5 per cent to 40 per cent effective January 1, 2012, as contracts allow. The company says continued higher costs for key raw materials, worldwide regulatory compliance, and transportation make this price adjustment necessary.

## People

### Changes at Univar Canada Changes at CASE Specialties

Larry Ham, manager supplier Relations, CASE Specialties, Univar has retired.

Ham has worked since 1965 and turned 65 in March 2011.

He says he has no immediate plans for his retirement except to tend to his arthritic knees and enjoy his family.

Ham began his long career in the industry with Abrex in Oakville in the mid-60s as a lab technician then progressed to the manufacturing area and eventually was plant manager until he left in 1976 to join Reichhold as a technical sales representative.

In 1984 Ham joined Stochem and worked his way from technical sales representative to General Manager and then Director of Supplier Relations. Univar bought the company in late 2002 and Ham was appointed GM of the Stochem business in Canada (P&L responsibility). After the Stochem business was integrated into the Univar business in 2006, Ham moved to Business Development in the Univar Materials Management Group and later that same year Univar formed Univar Specialties (formerly the Stochem busi-



Larry Ham

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A JBC process system is designed with an engineering approach utilizing over 30 years of electrochemistry experience. Our engineering team is comprised of individuals who have worked in the industries we service. This in-depth experience allows our team to anticipate customer concerns to ensure that systems come together and operate in a user-friendly fashion. A dedicated project manager will coordinate the engineering team efforts to ensure all customer equipment and process specifications are understood and addressed.

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Our expertise in fabrication includes ability to work with most types of steels, titanium and plastics. We also offer sandblasting and coating services in either epoxy or powder type coatings. Installation services are provided for all aspects of electroplating equipment installations and process flow remodeling.

All of our turnkey systems are supplied with a comprehensive pre-start safety review and onsite training program to ensure the customers' personnel are fully trained in all aspects of equipment functions at point of line commissioning.

The customers need for DC power sources for many electroplating operations is provided through our rectifier division, North American Rectifier (NAR). Here we are able to design and fabricate DC rectifier units, both conventional and switchmode style that will meet the customers processing requirements. Our rectifier units have a proven history of stable trouble-free operation, regardless of duty cycle and their operating environment. Rectifier units are available for all electrofinishing needs, including units for electrowinning refining, waste sludge dewatering, electro dialysis, pH control, anodizing and hard chrome plating.

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The JBC Limited team approach ensures that products sourced through us will be built with pride to the highest quality standard. Our mission is, "to provide our customers a cost effective well engineered processing system which meets all design and products requirements in an environmental sound manner."

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## IN THE NEWS

ness) and Ham continued on as Manager, Supplier Relations until his retirement.

"My years of service with Stochem carried over to Univar who bought us in September 2002. This year I was considered to have 27 years with Univar," says Ham.

Ham has seen a lot of changes within the industry. "Certainly the coatings industry has shrunk considerably," he says. "All you need to do is look at the membership decline in the various trade associations. The recession in 2009 and the many closures and bankruptcies have also had a significant effect."

Ham's vacant position has been filled by Kamlaish Mudhar.



Kamlaish Mudhar

"I hired Kamlaish in 1995 and have worked closely with her since then. She has a good technical background, great personality, great customer relationships and knows our suppliers extremely well. Kamlaish is ideal to fill my role and will do a fantastic job for Univar," says Ham.

The change was effective January 1st, 2012.

Ham concludes, "I will not miss the job but I will certainly miss all the people I have worked with over the years. I still have many friends in the industry."

Ham resides in Rockwood, Ontario with his wife (Jean) of 42 years. They have a married son

who lives in London, Ontario.

Mudhar says of Larry, "In the 16 years that I have known Larry, he is a true gentleman and very well respected in the industry by the customers and our suppliers. Larry made my transition to sales from the lab easy, when I joined Stochem (now Univar). He has been a great mentor and is a true friend to me. It was a pleasure working with him and we are going to miss him. My best wishes are with Jean and him as he retires."

She adds, "Stepping into the Supplier Relations role is exciting for me. Working closely with our Principles seems to be the natural next step for me and I am looking forward to it."

### New at Northspec

David Hazell has joined the Marketing and Sales Group of Northspec Chemicals Corp. as Product/Sales Manager. Hazell will be based in Ontario and will be responsible for key customers in the coatings, construction and related areas in Ontario, as well as managing various Northspec's supplier lines.

A graduate from Ryerson University in Chemistry, Dave joins Northspec with over 20 successful years of industry experience in R & D (urethanes, epoxies), and various specialty chemical technical sales roles.

The company welcomes Dave to Northspec Chemicals Corp. and wishes him all the success on his new assignment.

### Obituary: Barry Kay (July 29, 1935 - January 17, 2012)

The coatings industry is saddened to learn of the passing of (George) Barry Kay peacefully with his family by his side on Tuesday, January 17 at Oakville-Trafalgar Memorial Hospital. He was in his 77th year. Kay was the only child of the late George and Jessie (Cruickshank) Kay. In 1955, he met and married his wife of 56 years, Kathleen (Martin).

Barry was a reporter-photographer who began his career with the Moose Jaw Times Herald, followed in time by the Calgary Herald, the Scotsman/Evening Dispatch and the Globe and Mail. By 1970 he had decided that magazines were more his style and he joined Maclean Hunter in Toronto, where he worked on Canadian Paint and Finishing and Oilweek amongst other titles. He founded Kay Publishing and Coatings Magazine on June 15, 1979. He subsequently built the company into a multi-million dollar venture of trade magazines and educational conferences that were read and respected worldwide. He officially retired in 1998, and Coatings was sold to Rogers Communication's Inc., but he continued working on a consulting basis for the next few years.

A devout Catholic, Barry was actively involved in his Church. He was also a devoted Rotarian with the Oakville Trafalgar Club, and was twice awarded Rotary's highest honour, the Paul Harris Fellowship. He also campaigned and fundraised tirelessly in various capacities for the Arthritis Society. He is survived by his wife Kathie and many family members and friends who were blessed to know him.

Visitation took place at the Kopriva Taylor Community Funeral Home on Lakeshore Road West, in Oakville. Funeral Mass was celebrated at Saint Dominic Roman Catholic Church, in Oakville, on Saturday, January 21 at 11 a.m. In lieu of flowers, the family requested donations to the Arthritis Society or another charity of choice.



Barry Kay

## CORPORATE PROFILE

### Liquid Application

What do writing implements, TV housings, cell phones, laptops and commercial vehicle bodywork, as well as kitchens, wheel rims, yachts and cranes all have in common? These products and many more are coated using WAGNER systems and components.

Depending on the particular requirements and the environment in which a customer's products will be used, a wide variety of materials can be employed, such as top coats, primers, release agents, adhesives, corrosion protection and more with either a water or solvent base.

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### Appointments at MacDermid

MacDermid Incorporated is pleased to announce the addition of Aaron

Pokowski and Glen Breault to their Global OEM

staff. Both gentlemen will be responsible for leading and driving our activities within Ford and GM and their global supply chain.

Aaron Pokowski has been appointed the position of Ford Global Account Manager.

Aaron has over 11 years in technical engineering and sales experience in the automotive supply chain and has assisted in engineering multiple value added automotive fasteners which have achieved US patent approval. Aaron holds a Bachelors Degree in Mechanical Engineering from Lawrence Technological University.

Glen Breault has been appointed position of GM Global Account Manager. Glen brings 16 years of automotive experience in technical engineering and sales working with OEM customers and Tier 1 suppliers within the automotive industry. Glen is a graduate from Tennessee Technological University with a Bachelor of Science Engineering – Industrial Technology.

### Dow Coating Names North America GM

Dow Coating Materials, a global business unit of The Dow Chemical Company, has named Jose Maria Bermudez as the new general manager for North America.

In this role, Bermudez will lead all aspects of Dow Coating Materials' business in North America, including sales, manufacturing and engineering, technical services, supply chain, customer service and marketing.

Bermudez has served in a variety of senior leadership roles with Dow (and previously Rohm and Haas) for more than 20 years, most recently as the general manager for Dow Coating Materials in Latin America.

### HALOX Announces New Hire for its Project Chemist Position

HALOX, a division of ICL Performance Products LP, is pleased to announce David Tarjan, former Chemist with Sherwin-Williams' Protective & Marine, has been recently appointed Project Chemist at HALOX.

New to HALOX, but not new to the paint and coatings industry, Tarjan's expertise encompasses five years of laboratory experience developing new products, working within various solvent and water-based coating systems, ensuring product quality and performance, and maintaining supplier relationships.

### Chicago Pneumatic appoints Todd Francis new Vice President, North America

New role to focus on new business development, strategic distributor relationship engagement

Chicago Pneumatic announced the appointment of Todd Francis as the new Vice President, North America for stationary compressors. Francis will be based out of Chicago Pneumatic's Rock Hill, S.C. office, and will be responsible for new busi-

ness development and further building Chicago Pneumatic's distributor network across the North American compressor markets.

### Fielding Celebrates Change

Effective January 1, 2012, Fielding Chemical Technologies Inc. will welcome a new CEO. Ellen McGregor will pass the baton to Paul Haskins, current Executive Vice-President.

"Paul is a company star we have groomed for this position by providing education opportunities, mentorships and experiences," says lan McGregor, co-owner of Fielding.

"The succession is a well-planned and well deserved move. Paul has held senior leadership positions in operations and in administration. I am confident that Paul will continue to build on the legacy of the McGregor family to protect people and our planet through Cradle to Cradle® Care of molecules," conveys Ellen.

Paul says, "I am honoured by this appointment and excited to lead Fielding. We have an excellent staff, highly skilled and dedicated to Fielding's success. I believe Fielding is poised for growth. We are eager to embrace the opportunities and continue to provide excellent service to our customers."

www.hdtschemicals.com

## HDTS CHEMICALS INC.

HDTS Chemicals provides New Substance Notification services, is Canadian Agent to a number of large foreign chemical manufacturers providing confidential importer of record services. We also create site specific customized employee training programs for Transport of Dangerous Goods and Workplace Hazardous Materials Information Systems (WHMIS) and are poised to provide Globally Harmonized System (GHS) conversions as soon as the regulations are published. HDTS Chemicals Inc. is a supplier-partner to the Canadian Association of Chemical Distributors (CACD) and a proud sponsor of the You Be The Chemist program.

HDTS partners with CCOHS to distribute CANWrite

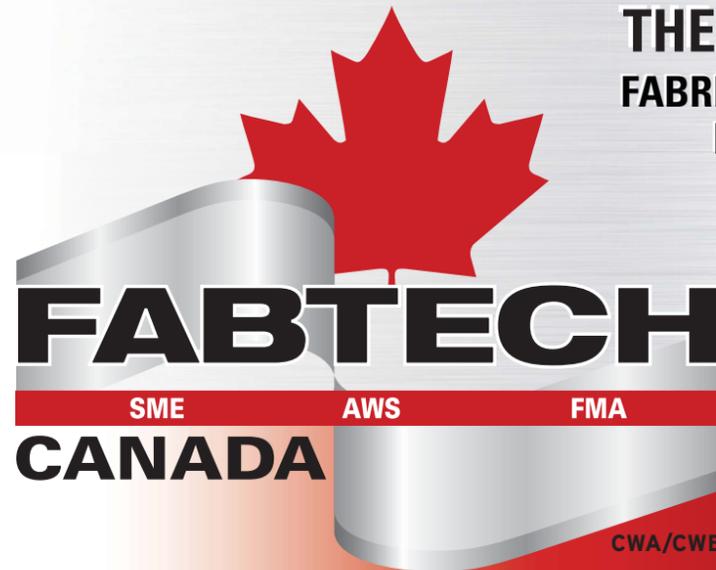
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"Canada represents a very important market for Fladder-Hansen & Hundebol Inc.. We participate with FABTECH wherever the event is located, and have come to expect very high results from the investment we make into the event. FABTECH Canada is a logical next move and we are excited about the prospects it offers."

Ben Barama, General Manager,  
Fladder – Hansen & Hundebol, Inc.

#### Co-Sponsors



#### Strategic Partners



## IN THE NEWS

The change will allow Ellen to focus on her many governance roles including Chairing the Boards of Fielding and Sustainable Path Inc. and her directorships in GreenCentre Canada, Switchable Solutions Inc., Sheridan College and the Credit Valley Conservation Foundation.

Fielding is Canada's leading producer of recycled chemicals and refrigerants serving markets around the world.

### New at Superfici

Superfici America welcomes Scott Grissom to the team as the North American Product Manager for DMC Wide Belt Sanders.



Scott Grissom

Scott will be responsible for all demonstrations and quotations of all DMC related products from our Concord, NC offices. Scott brings over 20 years of experience in the sanding industry starting as

a service engineer and then eventually moving to sales. His extensive knowledge of sanding applications, along with the marriage of DMC and Superfici, will better provide our customers with complete turn-key sanding and finishing solutions.

### Brookfield Names Chiang to Product Manager - Texture Analyzers

Brookfield Engineering Laboratories is pleased to announce the appointment of Eric Chiang to the

position of Product Manager - Texture Analyzers. Eric will be serving in the place of Len Thibodeau who has recently announced his retirement.



Eric Chiang

### Enthone Appoints Denise Fucci, Manager of E-Marketing Communications

Denise Fucci has been appointed the Manager of e-Marketing Communications by Enthone Inc., a business of Cookson Electronics.

In this newly created position, Fucci's primary responsibilities will be to ensure the successful and continuous development, optimization and content management of Enthone websites, SEM and online activities, in order to clearly differentiate and position Enthone as a leading and preferred supplier to the markets and industries the company serves.

### Correction

In our "What's New & What's In Demand?" article in the September/October 2011 issue, an image used to help illustrate the article was incorrectly identified. The correct image illustrating good sag resistance performance by Dow Coating Materials Rheology Modifiers.



## CPCA Corner

with Gary LeRoux

I am pleased to be taking on the position of President at a time when there are still many challenges to tackle such as the recently announced Phase 2 of the Chemical Management Plan by the Federal Government. CPCA worked successfully on Phase 1 of the plan with a focused sector approach, which led to a constructive review of chemicals in the sector that ensured minimal impact on its members. The Technical Committees of the Association did yeoman work and ensured that the chemicals identified for assessment were assessed based on sound science, which led to positive results for the paint and coatings sector. I will be working with the Board and committees to ensure that we continue with this facts-based approach as we move forward in Phase 2. There are also significant issues related to extended producer responsibility and the Board has given specific direction to move forward in a way that assures the industry continues to take its environmental responsibility seriously, while at the same time ensuring the sustainability of the sector.

CPCA was successful in obtaining appropriate VOC limits in the first round of regulations for the sector, that is, for products used by the architectural and industrial maintenance class as well as the auto refinishing segment. This set of regulations will see the paint and coatings sector reduce VOCs in its products by more than 80 percent at the end of this regulatory period. CPCA already has an eye on the next set of limits envisioned by the federal government and will be working hard to ensure that the next round of regulations is appropriate for the industry.

Before that begins, Environment Canada will be issuing aerosol regulations for the sector. CPCA is now fully engaged in consultations with Environment Canada and working with our technical committees to shape the new regulations for aerosol coatings. The first meeting on this file took place the first week of January and more are planned in the coming weeks.

The former President, Jim Quick, in close consultation with the Board, did a great job of laying a solid foundation for effective issue management and good governance for CPCA. I am looking forward to working with the Board to continue in that vein. To this end, CPCA has gone out to members with a comprehensive survey to gauge the views of members with respect to programs and services offered by the Association. We are also in the process of updating and renewing the website to enhance the utility for members. The budgeting and financial reporting process has been streamlined and made more transparent for the Board. And, we already have a strategic planning session scheduled for March with a view to renewing the plan for the next three years. Once that plan is in place, we will be in a position to take on the necessary work on behalf of our members that will ensure the paint and coatings sector sustainability over the long term.

Given that I have worked with the Association as a government relations advisor over the past several years, I'm fully aware of the challenges faced by the industry and I don't want to miss a beat in doing what needs to be done for the sector. In the coming months I will be reaching out to existing members to get important feedback and advice from current members as well as looking at those who can benefit from the programs and services being offered by the Association. The lifeblood of any Association is 'engagement' of members. My goal is to ensure members are fully engaged because the industry is stronger when fully engaged and united on relevant issues.

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

## CORPORATE PROFILE

# Precise

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# Graco

## Providing Innovative Solutions to a Diverse Global Market

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a widerange of fluid handling solutions.

Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

## New Products

Over the past couple of years, Graco has introduced several innovative products ideal for a wide range of applications, including wood, general metal, construction, electronics and more. These new products improve productivity, reduce paint usage costs, lower emissions and provide consistently better finishes.

## Agitator Speed Controller

Designed for use with a variety of Graco and competitive pneumatic agitators, this product maintains a constant pneumatic agitator speed as material levels inside the drum decrease, which improves process control and reduces energy consumption. The speed controller also prevents over agitation of shear sensitive and waterborne materials. Agitators not using the

speed controller increase their rotational speed and air consumption as the drum is emptied. This speed variation can reduce the finish quality by creating air bubbles and excessive shearing. The agitator speed controller can be installed in a few minutes and is also compatible with Graco's in-drum back-gear, expanding blade and twistork agitators.

## Merkur ES

Need Efficiency and Excellent Spray Performance? The Merkur ES quick flush AA spray package uses 45% less material to fill the system than the leading competitors while its proven reliable air motor, pump lower and key components mean the pump lasts longer and you have less downtime. The low profile of this spray package makes it great for smaller finishing jobs and make it easy to transport.

## ProControl 1KS

Maintain a closed loop flow control system - eliminating excess material applied to parts for increased material savings. It ensures consistent flow rates and allows for better process control. Use with Graco's ProMix 2KS plural component proportioner for integrated color change in your automatic applications.

## 4-Ball Pump Technology

Graco's 4-ball piston pumps feature an enclosed wet cup and spring loaded packings which result in consistent lubrication for longer packing life and reduced maintenance. They are also energy efficient and designed for a variety of markets. The 4-ball lowers can be used with pneumatic, hydraulic and electric platforms.

For more information about Graco Finishing products, please visit [www.graco.com/finishing](http://www.graco.com/finishing).

*"Conn believes in keeping it simple, durable and functional"*

## FABTECH 2011 Breaks All Records

### Largest Expo in Show History Proves that Manufacturing is Not Only Alive, But Thriving

FABTECH 2011 shattered all records of previous shows, with the four-day event at Chicago's McCormick Place welcoming a historic 35,457 attendees; 35 percent increase over 2009 – the last time FABTECH was held in Chicago.

FABTECH is North America's most comprehensive event for metal forming, fabricating, welding and finishing companies. This year's show had more than 1,300 exhibitors, filling a record 522,000 net square feet and attendees from more than 80 countries.

The 2012 show will be held in Las Vegas in November and return to McCormick Place in 2013. [www.fabtecheexpo.com](http://www.fabtecheexpo.com).

FABTECH is co-sponsored by five industry-leading associations: the American Welding Society (AWS), the Fabricators & Manufacturers Association, International (FMA), the Society of Manufacturing Engineers (SME), the Precision Metalforming Association (PMA), and the Chemical Coaters Association International (CCAI).

Here are some photo highlights of FabTech 2011. More photos can be found online at [www.cfc.ca](http://www.cfc.ca).  
Photos by Pete Wilkinson.



Dave Freeland, DFI, Edmonton AB and Andre Lajoie, ANJ Sarnia ON.



Jay Cressman, Unispray Nozzles, Waterloo, ON.



John Maraconda and Al Moon, Guspro Inc, Chatham ON.



Mike Lang, Jervis B Webb Hamilton, ON and Cody Millington, Hranco Ind. Medicine Hat, AB.



Tom McAdams and Ethan Hofer, Crystal Springs Hog Equipment, Ste Agathe, MB and Greg Taylor, GEMA Canada.



Andre Lamonthe and Norm Paterson, Temagami Boat Works.



Tom Nolan and Wayne King, Grit Industries, Lloydminster SK.

## Kolene



Kolene Corporation is a recognized leader in providing surface cleaning and treatment technologies for components and materials. Driven by its markets, Kolene makes problem solving its first priority. Kolene is a single source supplier of process equipment & chemicals, aftermarket service, and ongoing technical support.

Founded in 1939, Kolene continues today as a privately-held small business. In the past, our most successful products have emerged from solving specific problems. Today, Kolene is committed to leveraging our core technologies for new and enhanced applications and processes.

Ongoing activities include:

- process R & D
- application development
- field service
- process equipment
- chemical supply
- engineering & design
- ongoing technical support

Our processes are used for a wide variety of difficult metal cleaning applications, including:

### KONTINUOUS™ - Paint stripping systems

- Rack Stripping - in-line/on-line for greater efficiency, quality and cost savings.
- Our Kontinuous™ paint stripping systems deliver 100% stripped racks every pass, at normal line speeds.
- Kontinuous removes cured coating build-ups, improving part grounding while reducing rejects and recoats.

### DENAMEL™ - Porcelain enamel removal

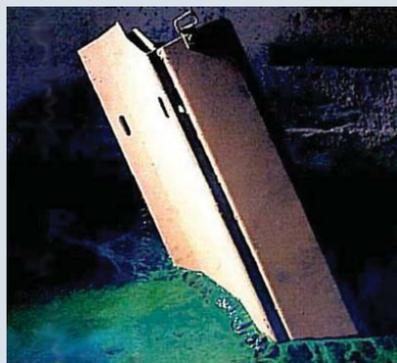
- Our Denamel™ is fast, economical method for removing porcelain enamel from reject production parts and tooling.
- Strip single and multiple coats of enamel from simple and complex parts in 5 to 15 minutes.
- Water soluble process chemicals allow for fast and thorough rinsing.
- Compact, self-contained process equipment.

### KOLENE® No. 6 – Coatings removal

- Removal of forming lubricants such as molybdenum disulfide, graphite, and boron nitride materials.
- Water soluble process chemicals for fast and thorough rinsing.
- Rapid process times.

Kolene can provide you with robust, industry-proven processes that solve manufacturers' most difficult metal cleaning problems. Single-source responsibility for all process aspects from initial proof of concept to field commissioning helps assure consistent, reproducible results. From small, unitized process systems to large, fully automated process lines, Kolene can provide you with the appropriate process solution to your cleaning problems.

## CORPORATE PROFILE



For further information about Kolene surface cleaning and treatment technologies or to arrange complimentary sample processing of your parts, please contact Kolene Corporation.

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Fax: 313-273-5207  
Email: [sales@kolene.com](mailto:sales@kolene.com)  
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## EXTREME CLEANING TECHNOLOGIES®

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### Other Cleaning Processes:

- Removal of tough and tenacious lubricants.
- Removal of porcelain enamel coatings.

AkzoNobel is the largest manufacturer of coatings globally and is proud to be supplying "Tomorrow's Answers Today" in all applications of coatings. At AkzoNobel we take pride in our core values of focusing on our customer's future first, embracing entrepreneurial thinking, developing the talents of our people, the courage and curiosity to question, and integrity and responsibility in our actions. Being part of a global leader in coating technology we have been able to combine the high level of service and technology with an even greater amount of expertise that can be drawn from the global presence of AkzoNobel. The Chemcraft brand has not disappeared and continues to be the brand of choice throughout our strong distribution network. Throughout our history, we have pioneered the latest technologies and delivered them with unrivaled service, always treating our customers as partners and this is a unique position in the market that will not change.

We continue to drive and be the leader in "green" technology with a large percentage of

our R & D time being spent coming up with new solutions to this growing requirement.

In 2011 AkzoNobel introduced its new Chemcraft branded "Waterborne Complete" line of waterborne coating systems that has been developed with cost, application and performance being the main drivers for this product launch. This new water base line of products is available to both OEM and distribution customers and is now able to cover all your coating requirements in a water base alternative.

With the emergence of L.E.E.D. and GREENGUARD® driving the move to lower VOC and removal of formaldehyde we have complete systems to meet these finishing requirements with both conventional and UV cured technology. In 2011 AkzoNobel introduced the Airguard™ line of products which are GREENGUARD® certified coatings. The 2011 introduction to this line included a 1K water base self seal topcoat as well as pre-catalyzed self seal topcoat. In 2012 a post catalyzed product will be added to the Airguard™ product line.

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Choose from our complete line of stains, lacquers, catalyzed coatings, urethanes, polyesters, and UV-cured wood coatings through the channel that best suits your needs directly from our factory, or through extensively trained distributors who offer local service and delivery.

Your production line has unique requirements. Our field technicians and chemists will work together to customize our top-quality formulations for your existing finishing equipment, meeting or surpassing final product specifications while reducing your costs by improving efficiency.

Explore our Web site to learn more about how AkzoNobel can solve your finishing challenges and help your business thrive. Don't hesitate to contact us with questions or requests. As your partner, our success depends upon yours.

### Environmental Concerns

AkzoNobel welcomes our role in helping to

preserve our planet and currently are ranked #2 on the Dow Jones Sustainability Index. Beyond merely following the regulations governing manufacturing and our products, we strive to exceed the most stringent environmental standards without compromising the look, durability, or ease of use that distinguish our coatings.

We developed a full line of 275 VOC g/l coatings in anticipation of regulation changes. Our carefully tested, fully compliant coatings enabled our customers to keep producing without delays when the stricter standards will take effect. AkzoNobel offers creative, customized system changes to reduce your VOC tonnage.

Tell us about your environmental concerns. We've probably already solved them. If your dilemma is new to us, we will eagerly seek out the creative, economical solution that's best for you. We owe our success to such partnerships. Your challenges are our opportunities.

### Safety First

AkzoNobel takes the safety of our personnel as our top priority. We have successfully implemented several new safety programs in our facilities which are monitored by the personnel on the shop floor as well as management at all facilities. AkzoNobel has re-engineered several pieces of equipment with the goal of a safe work environment for all AkzoNobel employees. AkzoNobel globally recognizes Safety Day's throughout the year with all of our employees continuing to take the following pledge "No one will be injured on my watch, in my work area, on my team, or in my location." This is "Every Employee's Responsibility"

### Distribution

We have a strong distribution network, which has trained staff to help you with all your finishing requirements and applications. This network allows our technology and local expertise to be available to all businesses. To find a distributor near you along with information and tools regarding the Chemcraft® brand products please use our distribution website.

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## TOSCOT Christmas

The Toronto Society of Coatings Technology held its annual Christmas lunch in Brampton, ON, on Dec. 13, 2011. Here are some photo highlights with more to be found online at [www.cfm.ca](http://www.cfm.ca). Photos by Pete Wilkinson.



## CCC Chemicals

Canada Colors and Chemicals Limited is pleased to announce the evolution of our identity to CCC. As we take our brand forward, we remain committed to improving how we meet the expectations of our coatings industry partners.

"In today's markets, companies face hard realities and new possibilities every day," says Dave Emerson, President of CCC. "But one thing is certain - a company that stands still gets left behind. Our new brand is a highly visible signal to our market that we are not standing still. It shows we are serious about business and that we will be a dynamic leader going forward."

### Solutions for today. Opportunities for tomorrow.

A trusted partner to Canada's chemicals and plastics industries for over 92 years, CCC intelligently combines its vast experience with technical skills and marketplace, distribution and manufacturing knowledge to meet the needs of today and identify opportunities for growth tomorrow.

### Exceeding expectations

CCC believes that to be a leader we must consistently deliver beyond our customers' expectations by developing the deepest understanding of their specific coatings needs.

### Searching the world for value

CCC sources high quality products from hundreds of suppliers in Canada, the United States, and around the world. We also have a dedicated team continually searching the globe for new sources, new products and innovations, and environmentally friendly options, to bring more value to our customers.

With facilities in Montreal, QC, Brampton and Windsor, ON, Winnipeg, MB, Calgary and Leduc, AB, and Delta, BC, our Canada-wide distribution infrastructure ensures timely, cost-efficient and safe delivery of products and services.

### Committed to Responsible Care®

CCC is a leader in Responsible Care and operates by its codes to guarantee safe, proper handling and delivery of all the products we offer to the marketplace.

### Our coatings team meets your specific needs

Like all CCC teams, our coatings team members across Canada are highly trained chemistry and business experts with many years of manufacturing and raw material experience in the coatings industry. We understand the coatings market — what is needed for success, and which chemistry and market trends to act on.

### Powered by expert in-house support

Our technical depth and capabilities are unparalleled. CCC sales people have chemistry or related backgrounds, and are fully supported by knowledgeable in-house technical support. This is key to understanding the needs of our coatings partners. It enables us to be more insightful, to look beyond the obvious and proactively create solutions and opportunities.

### Moving forward with you

We plan. We think ahead. We are dynamic, energetic business partners who consider every action carefully. We are measured yet adaptable, always moving our customers forward towards further success.

Our evolution from Canada Colors and Chemicals Limited to CCC advances our goal to be dynamic leaders in our industry. By understanding our partners' evolving needs, and creating value-added solutions that fuel growth, we solve the challenges of the day. And we help create the business opportunities of the future.

We look forward to speaking to you about your needs. Please contact us at [info@ccc-group.com](mailto:info@ccc-group.com).

Canada Colors and Chemicals Limited is comprised of CCC Chemicals, CCC Plastics, CCC Ingredients, and CCC Sulphur Products. Our Coatings & Construction business continues to play a key role within CCC Chemicals.

## CORPORATE PROFILE

 Canada Colors and Chemicals Limited is now



You know those days when everything seems to magically come together?

**Every light is green. Every door is open. Every deadline, met.**

Working with us as your chemical, plastics and ingredients supply chain partner, this is just another day. But it's not magic. It's intelligence 90 years in the making. To mark the beginning of our next 90 years, we've transformed our identity. So you can now think of Canada Colors and Chemicals as CCC.

Let us help you meet the challenges of today and find the opportunities of tomorrow. Contact us at [info@ccc-group.com](mailto:info@ccc-group.com).

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<b>BASF</b>	Polyether Polyols, MDI, MDI Prepolymers
<b>Brilliant Group</b>	Fluorescent Pigments
<b>Crayvallac Additives</b>	Coating and Ink Additives
<b>Dow Chemical</b>	Walocel Cellulosic Additives, Nitrocellulose Resins
<b>Dupont Canada</b>	PFOA-free Fluorosurfactants, PTFE Powder
<b>Eternal Chemicals</b>	Acrylic Monomers/Oligomers for UV/EB
<b>Evonik</b>	Solid Acrylic Resins, Polybutadiene, Isocyanates, Amines, APAOs
<b>IHT</b>	Photoinitiators, UV Protection, Antioxidants
<b>Invista</b>	Specialty Amines and Urethane Polyols
<b>Jeco</b>	Organic Pigments
<b>Kerneos</b>	Superplasticizers and Additives
<b>Kukdo Chemicals</b>	Epoxy Resins and Specialties
<b>Momentive</b>	Redispersible Powders
<b>NOVANT</b>	Micronized Iron Oxide Pigments, Pearlescent Pigments
<b>Plasticolors Inc.</b>	Pigment Dispersions and Additives
<b>Sachtleben</b>	TiO <sub>2</sub> , BaSO <sub>4</sub> , Lithopone specialties
<b>Solutia</b>	Polyvinyl Butyral Resins, Coalescing Solvents



**NORTHSPEC**  
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2 Lansing Square Suite 300  
Toronto, Ontario M2J 4P8  
416-496-0128

[www.northspec.com](http://www.northspec.com)

## Northspec Chemical Corp.

Having celebrated their 10th anniversary in 2011, Northspec Chemicals Corp. continues to be one of the most innovative providers of specialty raw materials and high performance chemistry solutions to the Canadian Coatings, Graphic Arts, Floor Care, Composites, Adhesives and Construction related industries.

Proudly, Northspec Chemicals Corp. represents many specialty lines from various industry leading suppliers including: Avebe, Arkema, BASF, Brilliant, Cray Valley, Dow, DuPont Canada, Eternal Chemicals, Evonik, Genesis Biosciences, Iht, Jeco, Kukdo Chemicals Co. Ltd., Momentive, Kerneos, Novant, Plasticolors, Lapinus, Sachtleben, Solutia and other complimentary manufacturers of additives, monomers, resins, pigments, and specialty products.

Known for their technical expertise and commercialization ability, Northspec's sales and marketing team continue to offer value-added solutions for both the current and next generation requirements of their customers. Due to continued success in this area, and in order to meet growing demand, Northspec has expanded their sales & distribution infrastructure across Canada and have moved into new offices.

Northspec Chemicals Corp. is a member of the Canadian Association of Chemical Distributors, and as such adheres to the codes of the CACD's Responsible Distribution product stewardship program. Being part of this world-renowned program means that customers and suppliers can be assured that when they work with Northspec, they're dealing with a reliable raw material distributor that consistently provides quality products to the Canadian market place.

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M2J 4P8

### Gema — The Powder Coating Technology Leader

Gema is a pioneer in powder coating equipment technology, offering customers the confidence and expertise that comes with being the industry's world leader.

Equipment from Gema is durable, flexible and engineered to last, providing increased performance, greater efficiency, and a better return on investment. Gema sets the industry standard, developing the finest powder coating equipment available.

Gema is leading the way in color change solutions, offering the latest product innovations designed to maximize productivity and color change flexibility.

Gema's latest color change solution, the OptiCenter™, presents a new generation of powder management systems. With its quick and dust-free powder management, OptiCenter enables excellent coating results. Short suction tubes, new injectors, and optimized pneumatic connections ensure a higher powder flow rate with less air consumption, resulting in reduced wear and tear. The overall design allows extremely quick color change. The compact design forms an ideal basis to integrate gun, axis and booth control.

Gema's MagicCylinder® quick color change booth is designed to handle a large variety of colors. The round booth with a patented central suction system guarantees extremely quick and clean color changes. All of

## Gema

this without any mechanical cleaning tools or entering the booth...you can work in a clean, quick and economical way!

The OptiColor™ performs color changes in a matter of seconds, while managing multiple colors at one time and eliminating the risk of contamination. Designed to work in XTreme Color Change Environments™, this easy to use and cost effective solution allows you to save time and money when changing from one color to another. OptiColor is designed for manual spray operations using multiple hoppers set up to spray various colors.

With Gema's OptiFlex® Series, you've got all you need to power up your productivity! The OptiGun® Automatic and the OptiSelect® Manual powder coating guns inte-



grate the most advanced powder charging technology available. Every component is designed for total reliability, convenience, and performance. Using 100,000 volts of FirstPass Power™, you can coat it right the first time — every time!

Gema manufactures spray application equipment and recovery systems used to apply powder coatings in a variety of markets including pipe coating, automotive, appliance, office furniture, lawn and garden, and other general industrial market segments. Gema's product offerings include manual & automatic spray guns and booths, fast color change equipment, cartridge & cyclone recovery systems, gun movers, control systems and other ancillary equipment.

Gema North America utilizes a modern application laboratory at its Indianapolis headquarters. Equipped with fully automatic powder coating lines, designed for both manual and automatic coating, the ability to demonstrate a wide spectrum of powder coating needs is easily accomplished.

The Gema North America office offers direct sales and distribution support in Canada, the United States and Mexico. To learn more about product offerings or obtain assistance in determining which equipment is best for your operation, visit [www.itwgema.us](http://www.itwgema.us) or call 800-628-0601.

For more information contact Gema at:  
Gema North America  
4141 West 54th Street  
Indianapolis, IN 46254  
Phone: (800) 628-0601  
Email: [powdersales@itwgema.com](mailto:powdersales@itwgema.com)  
Website: [www.itwgema.us](http://www.itwgema.us)

## OptiCenter™

fast, clean  
and superb coating results



The new generation of powder management systems has a name...OptiCenter. With its quick and dust-free operation, it enables excellent coating results. OptiCenter is a new modular concept which is suitable for both stand-alone operation and for integration with gun, axis and booth control.



[www.itwgema.com](http://www.itwgema.com)

## Gema

4141 West 54th Street  
Indianapolis, IN 46254  
Phone: 800-628-0601

## OCPA Luncheon

Ontario Painting Contractors Association had its Christmas Lunch, Wednesday, December 7, 2011 in Woodbridge, ON. Here are some photo highlights with more to be found online at [www.cfm.ca](http://www.cfm.ca).

Photos by Pete Wilkinson.



## CORPORATE PROFILE

# Stone Tucker Instruments Inc.

## CANADA'S LEADING SUPPLIER OF COATINGS INSPECTION AND TEST EQUIPMENT

Stone Tucker Instruments was incorporated in 2003 to meet the Canadian coatings industry's need for cutting-edge inspection and testing technology backed by world-class customer service and the expertise of NACE-certified staff.

Stone Tucker Instruments recognizes the importance of timely delivery in the fast-paced coatings industry. As DeFelsko's primary Canadian distributor, all standard product lines, and a wide variety of other items are in stock at all times. DeFelsko's full range of products, including the brand new PosiTector SPG Surface Profile Gauge, as well as the newly redesigned PosiTector 6000, and Dew Point Meter can be found on-line at [www.stone-tucker.com](http://www.stone-tucker.com).

PosiTector 6000, DPM Dew Point Meter, and SPG Surface Profile Gauges feature DeFelsko's brand-new PosiTector Universal Gauge Body, which receives all probes for all three gauge types. Simply power down the gauge, and change probes: one gauge body, two memory/stats options, three key coatings inspection functions.

The new Universal Gauge Body receives updates via web to keep your gauge current. Data transfer options include USB mass storage - stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers; no software required - or PosiTector.net, a free, web-based application offering secure storage of thickness readings. Check out the full features of the Universal Gauge Body on the Stone Tucker Instruments website at [www.stone-tucker.com/en/coating-thickness-gauges/defelsko-positector-universal-gauge-body](http://www.stone-tucker.com/en/coating-thickness-gauges/defelsko-positector-universal-gauge-body).

Stone Tucker Instruments is pleased to announce that they are now a Canadian distributor of the TQC line of field and laboratory instruments. This addition will enable Stone Tucker to provide the Canadian industry with high quality, competitively-priced laboratory and field testing instruments. Visit our website to see our line of TQC instruments, including the new Curve -X2 USB Oven Temperature Profiler.

The TQC Curve - X2 and cross hatch adhesion kit, combined with the DeFelsko Powder Checker and PosiTector 6000, will provide powder coating facilities with all the information required to prove the quality of their powder coating application.

Stone Tucker distributes many of the world's finest inspection and testing equipment, including DeFelsko, Dakota, Testex, Chlor-Rid, Western Instruments, Salt Smart Salt Meter, PCWI, Montipower, TQC, Rhopoint, and G.A.L. Gage.

Coatings professionals will tell you that the key to good coatings application is proper surface preparation. Stone Tucker Instruments is the Canadian distributor for the MBX Bristle Blaster. Designed to clean rust and scale from industrial surfaces — including the ones that conventional sandblasting just can't touch — the Bristle

Blaster leaves a surface condition comparable to an SSPC SP-10 near-white blast while generating an anchor profile between 2.5 and 3.3mil. The MBX Bristle Blaster is just one of the products recommended to ensure a quality coatings application every time.

Stone Tucker Instruments is committed to providing their customers with outstanding service, including repair and calibration. Recently, Stone Tucker Instruments added a NACE — trained technical sales representative with multi-disciplinary NDE field experience. The addition will provide exceptional customer support for

Dakota Ultrasonics, Western Instruments, G.A.L. Gage, and their many other NDE instruments and products.

Stone Tucker Instruments has become Canada's premier supplier of quality control instruments and equipment because of their absolute commitment to their clients. To find out what Stone Tucker Instruments can do for you, call them at (905) 892-6142 or email at [info@stone-tucker.com](mailto:info@stone-tucker.com). You can also view their full line of inspection and test products at [www.stone-tucker.com](http://www.stone-tucker.com).



## PosiTector<sup>®</sup> SPG Surface Profile Gage

Measures and records peak to valley surface profile height.

- Durable tungsten carbide tip for long life and continuous accuracy — field replaceable
- All models have internal memory, statistics and a USB port
- Browse gage readings and charts using your computer's file explorer or synchronizing with PosiTector.net
- SmartBatch™ allows entry of user-defined parameters and criteria to comply with various standards and test methods
- **New!** PosiTector body universally accepts all PosiTector SPG, 6000 and DPM probes easily converting from a surface profile gage to a coating thickness gage or dew point meter

STONE TUCKER  
INSTRUMENTS INC.

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905-892-6142 • [info@stone-tucker.com](mailto:info@stone-tucker.com)

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45 Years of Quality

## IN THE NEWS



Tim Kliwefelter and Mark Livesley, ICA North America.



Rob Penfold, Tim Costin and Ross Ganchev, Valspar.



Jody Leclaire, TR Kitchenworks, Pierre Tanguay, Preverco Flooring, Pablo Montoya, Francois Pellerin and Frederic Coutu, AkzoNobel Wood Coatings.



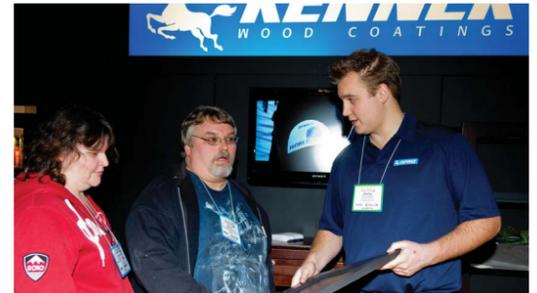
Frank Colangelo and Alan Purnell Fantastic Kitchens flank S.T. Rajan, Exel Canada.



Pat Doherty, Graco, Paul Madonia, Technical Fastener Supply and Don Adams, Graco.



Andrew Scott-Taggart, Venjakob.



Renner Wood Coatings Western Canada Rep. Denny Stephen, explains products to Joanne and Darrin Ivany from Mercab Kitchen and Millwork Co. Barrie, ON. Photo by Sandy Anderson

## CORPORATE PROFILE

Alberdingk Boley is a global manufacturer of waterborne emulsions, polyurethane dispersions, water base UV dispersions, castor oil and modified polyols as well as linseed oils.

For the last 182 years Alberdingk Boley has been providing innovative, sustainable and environment-friendly solutions to the coating industry.

The US manufacturing facility in Greensboro, NC, produces a variety of products including acrylics, styrene acrylic, epoxy acrylic hybrid emulsions, polyurethane dispersions and water base UV dispersions.

Alberdingk Boley's vision is to make a significant contribution to environmentally sustainable technological progress. We believe in being an innovative partner to our customers worldwide. We pride ourselves in being flexible, responsive and creative.

In addition to the company's core competency of the development of water-based products, Alberdingk Boley has invested in the development of additional eco-friendly characteristics of its products including zero and low VOC formulation capability, solvent and NMP free as well as renewable sourced PUDs.

Alberdingk Boley offers a full line of waterborne emulsions and dispersions including:

- Acrylics
- Polyurethane Dispersions
- UV Curable Dispersions
- Acrylic Polyurethane Copolymers
- Acrylic Epoxy Hybrids
- Castor oil polyols

Our water-based emulsions and dispersions are designed for coatings over a variety of substrates:

- Wood
- Concrete

- Plastic
- Metal
- Textiles
- Leather
- Paper

Visit [www.AlberdingkUSA.com](http://www.AlberdingkUSA.com) for further information.

### Product Showcase:

Lignocure 2010 VP: Self cross linking lignin reactive hydrosol for wood protection, it dra-

matically increases weathering resistance.

AC 2403: Self cross linking multiphase emulsion with excellent corrosion resistance, superior water resistance, high gloss and excellent efflorescence resistance. For low VOC DTM, primers, topcoat and concrete.

AC 25381: Self cross linking multiphase emulsion with superior water and good chemical resistances can be formulated to

produce low VOC enamels. It can be used on multiple substrates like wood, fiberglass, metal and others.

AC 2360: Self cross linking emulsion with high gloss and excellent block resistance, Can be formulated for steel, aluminum, wood and concrete.

See us at the American Coatings Show 2012, Indianapolis, Indiana, Booth 611.

## Alberdingk Boley, Inc.

# Together... making



- Polyurethane acrylic hybrids
- Acrylic emulsions
- Polyurethane acrylic combinations
- Acrylic epoxy hybrids
- UV curable dispersions
- Castor oil based polyols

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[www.cfcm.ca](http://www.cfcm.ca)

## Andicor Specialty Chemicals

### CORPORATE PROFILE

As it enters its 10th year of operation, Andicor continues to enjoy success by focusing on what customers need in difficult economic conditions and an ever-changing regulatory environment. To meet those environmental challenges, here is a selection of key products to consider from our market leading suppliers:

**Alberdingk Boley**, known for high quality acrylics and polyurethane dispersions, are now manufacturing many of their most popular products in a state-of-the-art manufacturing facility in North Carolina, allowing for the demands of a fast-growing market for water-based polymers. AC25381 is an economic, self-

crosslinking, multi-purpose resin for all kinds of substrates (wood, metal, fibre, cement), with very good exterior durability, high chemical resistance, good blocking resistance and wet adhesion.

Andicor is now offering **Bway Corporation's** Tri-Seal plastic pail covers, a unique one-piece design with three molded-in seals for secure closure, eliminating the need for rubber gaskets for recycling ease. These covers require no special capping equipment and match up with plastic pails produced in Bway's Toronto production facility. As compared to pails produced with metal handles, pails made with plastic

handles simplify recycling while enhancing pull strength.

**Southern Clay Products**, a leading manufacturer of both solvent and water-based rheological additives, offers a full range of VOC-free associative thickeners under the Optiflo brandname, including the recently launched APEO-free Optiflo H7500-VF with specific efficiencies in VAE binder systems.

**OPC Polymers**, one of North America's leading producers of conventional alkyds and oil-modified urethanes, also offers a broad range of compliant resins, including High Solids, Eco-Alkyd™ Exempt Solvent, and

Water Reducible/Emulsion.

Wayne Pigment Corp. changed their name in 2011 to **WPC Technologies Inc.** This change reflects their expansion into new markets and technologies. Besides WPC's innovative line of non-toxic corrosion inhibitive pigments under the Wayncor® banner, WPC offers VOC-free Waynflash 111 for in-can rust protection and flash rust inhibition.

**Huntsman** is a world-leading producer of thermoset resins for the structural composite, adhesive, electronic, coating and construction markets. Huntsman offers Araldite® waterborne epoxy resins that can be used with a variety of Aradur® waterborne epoxy curing agents to formulate coatings with low VOC content and a wide range of end properties.

**RÜTGERS** is a high-tech supplier of specialty products for niche markets. Novares resins can be used as co-binders to achieve the required technical properties while increasing solid content and reducing solvent content. Novares liquid resin modifier LS500 when used in epoxy systems can be used as a substitute for nonylphenol, (displaying a similar accelerative effect during the curing reaction). Ruetasolv DI can be used to reduce the viscosity of epoxies and is non-toxic with high flash point.

**Cardinal Color** offers a complete line of earth-friendly colour dispersions that are VOC-free, APEO-free, phthalate-free, formaldehyde-free, and silicone-free. Perfect for any aqueous application, the ZVOC-line comes in 23 standard colours/concentrations (custom colour-matching is also available).

Please contact your local Andicor sales representative to learn more about these products and to order samples, or email us at [info@andicor.com](mailto:info@andicor.com).

Andicor meets the requirements of the CAD (Canadian Association of Chemical Distributors) and is also a member of CPCA (Canadian Paint & Coatings Association).

**Andicor Specialty Chemicals Corporation**

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Mississauga, Ontario L5T 2T4  
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Fax: 905-795-0912  
Toll-Free: 1-866-488-0003

[www.andicor.com](http://www.andicor.com)

# waves in the pond

Andicor Specialty Chemicals is a full-service national distributor of specialty chemicals and packaging. Our mission is to be a seamless extension of the suppliers we represent, offering:

- competitively-priced value-added products from some of the world's leading producers
- superior customer service
- knowledgeable and responsive sales staff
- local warehousing and delivery services

**Alberdingk Boley**  
[www.alberdingkusa.com](http://www.alberdingkusa.com)  
Acrylics and Polyurethane Dispersions

**Bway Packaging**  
[www.bwaycorp.com](http://www.bwaycorp.com)  
Round Paint, Cone Top, Oblong and Aerosol Cans, Steel and Plastic Pails

**Cardinal Color (Eastern Canada)**  
[www.cardinalcolor.com](http://www.cardinalcolor.com)  
Colour Dispersions

**CINIC America**  
[www.cinic.com](http://www.cinic.com)  
Organic Pigments

**Evonik Goldschmidt**  
[www.goldschmidt-is.com](http://www.goldschmidt-is.com)  
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**Fuji Silysia**  
[www.fuji-silysia.co.jp](http://www.fuji-silysia.co.jp)  
Silica Gel Flattening Agents

**Georgia Industrial Minerals**  
[www.gimmica.com](http://www.gimmica.com)  
Mica

**Huntsman Advanced Materials**  
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**Microcolor Dispersions (Western Canada)**  
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Alkyd and Oil-Modified Urethane Resins

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[www.novares.de](http://www.novares.de)  
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**Shamrock Technologies**  
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PTFE and Wax Additives

**Southern Clay Products**  
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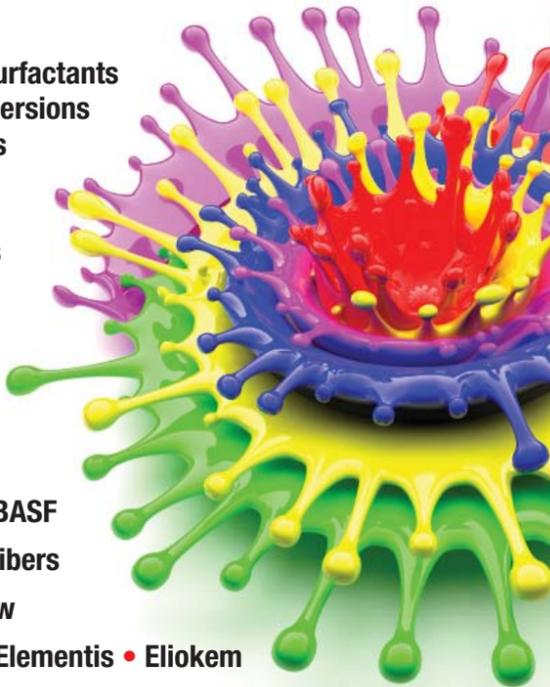
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sales@chemroy.ca

www.chemroy.ca

## Chemroy

We are Proud to be Known by the Company We Keep.

**Chemroy Canada has over four decades of experience in the Canadian Paints and Coatings industry.**

Customers trust Chemroy's hands-on expertise to deliver quality chemicals and ingredients. Our suppliers are industry leaders using their own "best practices" to ensure the quality of their products. We currently represent 30 companies in the Coating and Construction market alone. Chemroy Canada Inc. is a customer focused distributor with warehouses across Canada to meet your production requirements.

Chemroy Canada Inc. is a leading Canadian Specialty Chemical and Food Ingredient distributor established in 1967. We supply value added chemicals, ingredients and lab-related equipment, which are manufactured by leading global chemical suppliers. Markets served with over 1200 different products include: Coatings, Construction, Food, Pharmaceuticals, Inks and Adhesives/Sealants industries.

Products distributed by Chemroy to the Canadian Coatings Industry include: biocides, coalescent agents, dispersants and surfactants, pigments/dispersions, rheology modifiers, waterborne resins, crosslinkers, and high solid resins. These products are used in industrial, architectural and automotive coatings applications, meeting specific technical and aesthetic needs. With the drive to Low VOC and "green" products, Chemroy has resins and additives packages to meet most formulation, performance and cost goals.

Chemroy has warehouses in Toronto, Montreal and Vancouver in order to service our large customer base quickly and efficiently. We have established Customer Service operations in both Toronto and Montreal. We are ISO 9001 certified and part of the Canadian Association of Chemical Distributors (CACD).

We believe that safety comes first. We demonstrate this in the way we work each day, and it is why we only deal with suppliers with established and enforced health and safety programs. Chemroy is a charter member of the CACD (Canadian Association of Chemical Distributors), which is committed to compliance within the "Policies on Responsible Distribution" and ensures that we will not distribute chemicals or ingredients unless it can be done safely and in accordance with the highest standards established by the association and governmental laws.

Chemroy Canada Inc. is a customer-focused distributor with our unique "customer" approach to the marketplace. We have engaged and passionate staff who are looking to help our customers find the right product for their specific application and need.

### Chemroy Canada Inc.

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Canada H7L 4S3  
Ph: (450) 625-0505  
Fax: (450) 625-1734

### Western Canada

Suite 495, 104-1015 Columbia St.  
New Westminster, BC  
Canada V3L 3J1  
Ph: (604) 540-7620  
Fax: (905) 789-7170

With a heritage spanning more than 100 years, GFS has grown to become the world leader in paint booth technology, with products and services for all types of finishing operations across the industrial, automotive, and aerospace finishing industries. In addition to an extensive product line, including spray booths, ovens, washers, and complete systems for both liquid and powder coating, GFS has also developed training programs and educational material designed to provide best-practices advice to companies looking to get the most from their finishing equipment.

Continuous innovation is a driving force in GFS, and our engineers are always striving to achieve new levels of energy efficiency, productivity, and performance across all product divisions. Recently, GFS developed the new WAVE Aqua paint booth filters. WAVE Aqua is the world's first paint booth filter designed specifically for maximum performance with waterborne paints. This new filter is available in all standard filter pad sizes, as well as multiple sizes of large rolls.

GFS products are available in standard configurations for fast shipping, as well as custom configurations built

to any special requirements that your finishing operation may require. Individual GFS components function as standalone equipment, or as part of a complete system. Our team of engineers & systems specialists can develop an integrated turnkey finishing system to help take your production to new heights.

## Global Finishing Solutions (GFS)

Global Finishing Solutions is proud to work with the finest distribution network across North America. Your local GFS distributor provides technical support, sales, parts & filters, product installation, service and maintenance for all spray booths and paint finishing equipment.

### Contact us today for more information:

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info@globalfinishing.com

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**WAVE** AQUA FILTERS



# INDUSTRIAL FINISHING: POWDER COATING SPRAY EQUIPMENT

Continued from page 1

**GEMA** introduces the OptiCenter for quick colour change in powder coating. With its quick and dust-free operation, OptiCenter simplifies the colour change process, produces excellent coating results, and enables a higher automation of the powder coating process...resulting in significant cost savings. This revolutionary new concept is suitable for both stand-alone operation and for integration with gun, axis and booth control. Perform fast and easy colour changes in just seconds, while eliminating the risk of contamination with the new OptiCenter.

**EXEL North America, Inc.**, manufacturer of SAMES Manual and Automatic Powder Coating Equipment and Solutions, to meet the requirement of companies looking to improve paint saving, has designed the InoBell.

The InoBell is a high transfer efficiency applicator that offers extreme uniformity and high finish quality. One of the benefits is that the spray pattern can be the size of 2 to 3 guns. The powder flow of the InoBell can be twice as much as a gun, providing uniformity across the part. Gun finishing can provide large fluctuations in film build. The InoBell provides Excellent Regularity of Film Build and the quality of



GEMA's OptiCenter



InoBell-TCR

finish meets the most stringent and tight DOI criteria (quality of reflection). It also provides High Flow Rates and fewer applicators – just one powder bell can replace two guns as it can efficiently apply powder at flows in excess up to 30 kg/h.

InoBell provides the highest electrostatic charge of any applicator with a rotating electrode, even at high flow rates. InoBell provides high flow of charged powder with a soft pattern resulting in:

- Higher First Pass Transfer Efficiency

## BEX Spray Nozzles

### BEX Has Solutions!

#### Our Business

With over 45 years experience in the design and development of spray nozzles and tank mixing eductors, BEX responds to the user's technical concerns with understanding and willingness to provide effective answers.

Based in Mississauga Ontario, BEX is a leader in industrial spray nozzle and tank mixing eductor technology. BEX is a leader in providing unique and patented technology to improve spray application quality and reduce maintenance. For over 40 years BEX design and development team has provided answers to tough application questions in a variety of industries. Bex' customer base includes a wide array of industries including Automotive Parts Manufacturing, Food and Beverage, the Steel Industry, Pulp and Paper, Printed Circuit Boards and Waste Water facilities. Typical applications include parts cleaning, food processing, cooling, misting, dust control, phosphating, rinsing, and chemical processes. Many of our Customer base are recognized as the World Leaders in their respective industries.

#### Our Products

- Injection-molded nozzles, especially PVDF and non-pigmented PVDF
- Flat Spray "V", Solid Stream, Hollow Cone, Flooding and Self-Cleaning
- Zip-Tip® quick-change nozzles in stainless or plastic with the new easy-on easy-off Tabz® design
- Color-coded K-ball® clip-on, spray nozzles of all types and a variety of common and exotic materials
- Air Atomizing Spray Nozzles - JPL Series
- Hydraulic Atomizing Nozzles
- BEX Twister™ Nozzle – One-piece, anti-clogging nozzle offers larger flow rates with spiral design, full and hollow cone patterns
- Tank Mixing Eductors of various materials
- Tank Washing/Rotating Nozzles
- Air Wisk™ blow-off nozzles produce more thrust with less air

#### Our Materials

We have developed strong partnerships with leading North American raw material producers providing the highest quality PVDF, polypropylene, brass, bronze, mild steel, cast iron, stainless steel, PVC, Teflon, CPVC and more. Special materials are available on request.

#### Our Processes

BEX utilizes World Class Manufacturing systems to ensure exceptional product quality and accelerated lead times. Continuous improvement methodologies and lean manufacturing principles are always front and centre as we strive to provide World class quality and service. BEX employs state of the art testing methods to ensure our Customers' quality expectations are met. BEX is an ISO 9001:2000 registered company.

#### Our People

BEX employs a dynamic and dedicated team of Professional Engineers, MBAs, Six Sigma Black Belts, and skilled machine operators.

#### Our Innovation

Bex is constantly looking to expand and improve its product lines – whether this means adding a new spray nozzle to the line of products or making improvements to current product lines. In-house rapid prototyping capability means that we can turn concepts to validated engineered products within exceptional lead times.

BEX is committed to providing new technology and products to suit the ever-changing needs of our Customers.

This understanding is reflected in on-going research and development.

#### Our Commitment

The BEX advantage over its competitors is delivery. The company is noted for having the industry's shortest lead times. Its customer service is second to none with sales representatives throughout the United States, Canada, and Europe. We are committed to providing exceptional products to customer specifications and lead time requirements.

#### Our Competitive Edge

Bex leads the way in Engineering, Quality, On-time delivery, and Exceptional Customer Service.

The company prides itself on its proficient and friendly inside sales team supported by a very knowledgeable and experienced sales force. Technical and Design Engineering is the cornerstone of BEX. We have the solutions for your technical problems.

We will get you what you need, when you need it!

## CORPORATE PROFILE

### Clip-On Nozzle with Quick-Disconnect Tip!

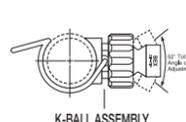


#### MOLDED PLASTIC QUICK DISCONNECT

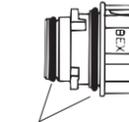
### K-BALL® / ZIP-TIP® SPRAY NOZZLES

US PATENT 5,421,522 OTHER PATENTS PENDING

- No tools required for ZIP-TIP nozzle tip installation or removal
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STANDARD O-RINGS

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COMPETITIVE PRICING • FAST DELIVERY

- Better Uniformity
- High Finish Quality

EXEL North America, Inc. has had recent success using the InoBell with an Office Furniture Manufacturer replacing two of their guns with a powder flow of 616g/min with one fixed InoBell with a powder flow of 249g/min. The customer is also not reclaiming the powder.

The outcome was that the customer had an improved finishing quality, uniformity and a 35 per cent powder savings. Exel has also had a few more successes with the new SAMES InoBell with product information and videos to be found on the company's web site.

**Nordson Corporation** offers a complete line of powder and liquid application systems to improve productivity and cost-efficiency.

Its latest manual powder spray gun – the Encore LT – combined with an ultra-

compact Econo-Coat® batch spray booth, the perfect complement for limited production or laboratory testing purposes.

Encore XT Manual Spray Gun retains its on-gun controls with bright display, and features an improved handle and trigger design for greater durability and ease of service. Controller retains its unsurpassed functionality and flexibility, incorporating: digital closed-loop flow control for repeatable, precision powder application; dual operating modes for both electrostatic and pneumatic control; patented Select Charge selectable coating modes; 20 program presets for saving sets of parameters to ensure consistent results with a broad range of part sizes and types; and extensive diagnostic capability.

Encore Modular Control System for use with Encore automatic guns, is an all-digital, easy-to-operate, energy efficient and modular control system that provides precision pneumatic and electrostatic



Nordson's Encore LT

## CORPORATE PROFILE

### Buckman Canada

#### Commitment makes the best chemistry.

Buckman Canada was established in Montreal on May 12, 1948, as a sales and distribution company, providing industrial microbiocides for the pulp and paper industry. Sales grew steadily, with Buckman carving out a reputation as the top slime control provider in Canada by the early 1960s. In the 1980s, in keeping with a newly adopted market-driven strategy that emphasized hiring and training good people, local manufacturing, and technical services, Buckman installed a local blending facility and technical service laboratory in Dorval, Quebec, in 1986. Outgrowing that facility, Buckman built a new 35,000 square foot facility housing offices, manufacturing, and technical services in Vaudreuil-Dorion in 1991. In 2002, a 30,000 square foot expansion added more room for manufacturing, warehouse, and research laboratories. Seeing opportunities in the water treatment market, Buckman acquired the Eclipse Chemical Company in 2000 and invested in new equipment and warehouse space for the water treatment business. Today, the company offers water treatment services in pulp and paper mills, middle market industries that include food and beverage plants, hospitals, etc., and heavy industry, such as oil refineries and petrochemical plants. In addition to water treatment, Buckman's focus industries are tissue, pulp and paper technologies, leather technologies and Performance Chemicals.

Knowledge is the company's most prized asset.

"We apply our knowledge to add value to our customers' operations," says General Manager of Sales Davor Mehes. "Our bread and butter is problem-solving and documenting continuous improvement in our customers' operations."

Buckman attributes its success to its Eight Business Management Standards that outline how the company conducts business on a global basis. These principles are faithfully followed in the company's core industries of pulp and paper, water treatment, leather and Performance Chemicals.

#### Coatings and Plastics

Buckman's coatings and plastics program started in 1957 with Busan 11-M1, a fungicide used to control mold on painted surfaces. Since that time, our comprehensive product portfolio has grown to include both standard and engineered additives for extra protection of formulated products:

- Corrosion Inhibitors • Mold Inhibitors • Wood • Preservatives • Flash Rust Inhibitors
- UV Light Stabilizers • Dispersants • Flocculants • Heavy Metal Precipitants
- Defoamers • Specialty Products • In-can preservatives

Today's demanding regulatory and environmental requirements have driven the company's R&D and transitional laboratories to focus extensively on market-driven products and solutions. We focus on solving customer problems. Our internal Solutions Team draws from the diverse experience found throughout our application specialty and development laboratories to assist customers with development and product concerns.

Buckman also realizes the importance of Green Technology and Sustainability. As a supplier to the chemical community, we take our responsibility seriously.

#### Fire Retardants

The Flamebloc GS <<http://www.buckman.com/core-businesses/performance-chemicals/coating-and-plastics/literature-downloads/fire-retardants>> series fire retardants are clear, water-based, and contain little or no VOC designed to meet industry needs for greener, safer fire retardant technology. Look for these and other future environmentally responsible products.

#### Buckman Green – Our Color. Our Commitment.

**Performance Chemicals** [www.buckman.com/core-businesses/performance-chemicals](http://www.buckman.com/core-businesses/performance-chemicals)

**Coatings and Plastics** [www.buckman.com/core-businesses/performance-chemicals/coating-and-plastics](http://www.buckman.com/core-businesses/performance-chemicals/coating-and-plastics)

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**Toll Manufacturing** [www.buckman.com/core-businesses/performance-chemicals/toll-manufacturing](http://www.buckman.com/core-businesses/performance-chemicals/toll-manufacturing)

**Textile** [www.buckman.com/core-businesses/performance-chemicals/textile](http://www.buckman.com/core-businesses/performance-chemicals/textile)

Commitment makes the best chemistry.

## 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 char-forming or intumescent substrate protection, meeting a host of standards and specifications required in many industries.

# Buckman

Commitment makes the best chemistry.

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In Canada 1-877-BUCKMAN  
or visit [www.buckman.com](http://www.buckman.com)  
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operating parameters for repeatable and reliable performance of automatic powder coating operations.

Prodigy High Density Powder, Low Velocity Air (HDLV) Color-On-Demand (COD) System – Features an active display with a FANUC Paint Mate robot, the Prodigy robot gun, pump, COD system and controller demonstrate a smart, integrated solution for precision dispensing and sophisticated, ultra-fast colour change control. Featuring a softer spray and higher powder output, the Prodigy system improves application speed, repeatability and productivity, and is easy to use.

Prodigy Manual HDLV System — A manual version of the Prodigy gun also features HDLV technology for softer spray, increased powder output and higher transfer efficiency. It can also be combined with the colour-on-demand system for less than 20-second colour change.

iControl Integrated Control System – Integrated automatic gun control system provides closed-loop digital flow for consistent, repeatable coating performance. All gun parameters as well as in/out positioners and reciprocators are user-programmable and controlled/monitored from an easy to use, central 12" colour touch screen operator interface.

The Encore® LT manual powder coating system from Nordson Corporation incorporates a new gun and controller that are easy to use and provide consistent, repeatable coating performance. Using Nordson's patented Select Charge technology, the Encore LT system allows users to quickly select from a set of pre-programmed coating modes to assure maximum spray performance under a wide array of production conditions.

The Encore LT powder spray system is available in configurations that provide ease of mobility around the plant.

The new Nordson oscillator for automated powder coating operations from Nordson Corporation is a 450 mm (18 in) stroke oscillator that provides manufac-



Nordson's Global Oscillator

turers with a high payload capacity of 80 kg (176 lbs) and a maximum stroke speed of 40 cycles per minute. These two features combined translate into 16 guns and high line speeds allowing for tall parts or part racks and high line speeds. These benefits equal high performance and maximum productivity.

Incorporating a simplified design, the Nordson oscillator features a pneumatic cylinder with accumulator counter-balance that results in energy efficiency, low wear, and long life of all moving parts. The counter balance results in no drifting of the machine when stopped. The pneumatic cylinder provides air cushioning for the gear box and crank arm resulting in less wear and longer life. This unique design from Nordson also allows the motor to run more efficiently resulting in lower operating costs.

**Wagner Industrial Solutions** offers its manual powder system PrimaSprint, which combines attractive design and superior functionality. Easy handling and exceptional coating results are achieved by the electronic controller EPG-Sprint. Its central dynamic control dial combines the operation of all parameters, which are divided into four functional sections.



Wagner's PrimaSprint

Unique cascade characteristic curve settings, and Tribo compatibility offer the greatest flexibility for all types of powder. The gun's highly dynamic remote control allows switching between pre-selected programs. Choose from 50 individually set recipes by a simple double click. Colour changing has been made easier and more effective by the air pulsation function. The modular design and a wide range of accessories enable the user to convert the unit into any of the three versions, to suit the diversity of coating tasks.



Wagner's PrimaCube System

Manufacturers of powder coating spray equipment offer solutions to all powder coating challenges with products offering quick colour changes, increased efficiency and more.

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*www.itugema.com*  
*www.wagnersystemsinc.com*

## Fischer Technology

### INNOVATIVE MEASUREMENT TECHNOLOGY

#### ABOUT:

Fischer Technology, a member of the HELMUT FISCHER Group, is a U.S. manufacturer of coating thickness, material testing, and material analysis instrumentation. Fischer is responsible for sales, production, technical support, and service for the United States, Canada and Mexico.

#### Application Laboratories

More and more, demanding measurement applications require highly-qualified technical support. FISCHER helps its customers to meet these challenges through its applications laboratory. We can help you solve your measurement dilemmas and determine which of our instruments will be the right fit for your application.

#### Service

Fischer Technology provides superior service and customer support with service locations on the East Coast, West Coast and Midwest. Fischer technicians are also available to provide onsite support including set-up, maintenance, and calibration.

#### PRODUCTS:

##### Handheld Coating thickness measurement

Fischer offers a complete range of hand held coating thickness gauges ideally suited for measurements of paint, powder coating, plating and anodize. The new FISCHER DataCenter software, for quick and easy data transfer to your PC and personalized inspection reports, is included with Fischer's handheld instruments. All Fischer units and foils come certified at no additional charge.

The FMP Series product line include the DUALSCOPE®, DELTASCOPE®, and ISOSCOPE® coating thickness gauges. The gauges measure over ferrous, non-ferrous, or both substrates with automatic substrate recognition. They can measure thin, thick, soft, and duplex coatings and can adapt to any measuring application using the large selection of interchangeable F-probes which yield extreme accuracy and a wide measurement range. Probes are available for hard to measure areas such as inside, curvature, and surface roughness. Bluetooth® wireless technology is available. Fischer also offers the pocket sized MPO and MPOR Series, which has two large displays and integrated wear resistant hard metal tip probe. These instruments give fast, precise, repeatable readings and are very easy to use.

Other products offered by Fischer include the: PHASCOPE® PMP10 for measurements according to the phase-sensitive Eddy current method. Ideally suited for

measuring the non-ferrous metal coatings on steel fasteners and other small plated parts.

PHASCOPE® DUPLEX measures individual thickness values of multi-layer coatings used in the automotive and appliance industries.

FISCHERSCOPE® MMS®, a desktop universal measurement system, is designed for coating thickness and materials testing according to the magnetic, magnetic induction, Eddy current, beta backscatter and electrical resistance measuring methods.

Fischer has a broad assortment of calibration standards. All Fischer calibration foils and standards are serialized and certified.

#### Material Testing Instruments

- FERITSCOPE® for material testing of the quality of weld seams in steel construction
- ANOTEST® for quick and simple on-site measurements for anodic coatings on aluminum
- SIGMASCOPE® for the measurement of the electrical conductivity of metals such as aluminum or copper
- FISCHERSCOPE® AND PICODENTOR® for measurement systems to determine the Martens Hardness in the micro- and nano- ranges

#### FISCHERSCOPE® X-Ray Fluorescence Instruments for Coating Thickness Measurement and Material Analysis

Fischer's X-Ray fluorescence instruments utilize an energy dispersive X-ray fluorescence analysis (ED-XRFA) method. The measurement and control software allows for the simultaneous thickness measurement and analysis of even complex coating systems, with or without calibration standards. The broad assortment of instruments can determine single or multiple coatings on the smallest structures or large components, trace analysis required by RoHs, or testing of jewelry and gold.

For additional information regarding the measurement of coating thickness, hardness measurement, or material analysis contact Fischer Technology at 860-683-0781 or visit us online at [www.fischer-technology.com](http://www.fischer-technology.com)

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## CORPORATE PROFILE

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# STRIPPING, the Environment and Product Solutions

When stripping, a finisher needs to be concerned with the type of paint or coating being stripped, thickness (and variation in thickness) as well as quantity, size of parts, racks, etc. and the sensitivity of the substrate as well as the stripping methods, such as heat, abrasion and dimensional stability on wood, plastic or metal.

Other considerations are: time frame, environmental restrictions concerning emissions, discharge limits and creation of ash, cost of the process regarding capital/equipment, energy, manpower, supporting equipment, and supplies, the floor space available and the flexibility of the process.

Every stripping situation is different and requires careful consideration to make the best decision. A finisher should review and set up a matrix of all the key factors above and then weight-rank them to each other. This analysis will often point to one or two methods that will work best.

## ENVIRONMENTAL PRESSURES

There are a lot of environmental pres-

ures on paint stripping, and this is a trend that is not likely to fade quietly. Green technologies will continue to be emphasized.

Almost every paint stripping method has some sort of environmental impact.

Burn-Off Ovens have particulate and VOC emissions, which need to be dealt with.

Chemical stripping has the potential for hazardous pollutant content, disposal of spent solution and vapours.

There are several abrasive methods (media blasting, carbon dioxide/dry ice, ice crystal, high pressure water) that may have less environmental impact, but require more elaborate equipment or have slower stripping times, are labour intensive and may have difficulty removing paint in narrow openings.

All stripping processes need to be concerned with the disposal of stripped materials and their potential for recycling.

Heat-cleaning ovens differ from other stripping methods, because there is no exposure to caustic chemicals and no

problems and costs associated with disposal of chemicals or contaminated sand/salt. Less manpower is also needed – a saving on overall costs.

With the heat method, pollutants from the burn off are the issue. Most oven manufacturers have engineers who work closely with the customer to ensure the oven meets all governmental emission guidelines.

In heat stripping, burn-off ovens are used to remove paint or powder coating from metal parts, normally hooks and racks, by heating the parts in a low oxygen atmosphere. The paint or powder coating is converted to smoke which is pulled into a high-fire afterburner where it is destroyed by temperatures as high as 1,800° F leaving a fine ash on the parts. Damaging the hooks and racks through over heating or allowing them to catch fire is a common concern. Temperature uniformity prevents warping and damage to larger hooks and racks. Operating costs, such as labour and utilities, can be minimized by racking the hangers so they can

be cleaned without unloading and reloading. The efficiency of the design can minimize hot air going directly up the chimney. Operating costs due to poor design, such as excessive gas consumption, and excessive handling due to error in oven sizing and cart design can result in a long return on investment.

After stripping there remains an ash, which should be removed. This can be accomplished by power spray with blasting media, shot blast or manually wiping down. This procedure must be done diligently and the cost should not be overlooked. Use of stainless steel where practical is recommended and square stock should be used in place of round with the part resting on the “point” of the rack. Some work has been done using ultrasonics.

Second to safety (all ovens must meet the inspections standards TSSA-CSA) for gas but many other safety features are important to allow controlled operation. Process speed and automatic operation (no operator input) is one of the top

## CORPORATE PROFILE

### Prepared for the future

Bühler has been a global specialist and technology partner in the supply of plants and services for processing grain and food as well as for manufacturing advanced materials for over 150 years.

Due to its extensive expertise and wealth of experience, Bühler is in a position to develop unique and innovative solutions for its customers, enhancing their market success. Through its consistently high quality, Bühler has come to be known over the years as a reliable

partner. It owes this reputation also to its international service organization, which provides support to its customers around the world.

Bühler operates in over 140 countries and has some 7800 employees worldwide. In fiscal 2010, the Group generated sales revenue of CHF 1.9 billion.

Bühler has been a partner to the paints and coatings industry for a long time as supplier for equipment and process know-how in a comprehensive range of grinding and dispersion applications.

### Performance Additives

As early as 2002 Bühler has started research in nanotechnology. Bühler's comprehensive know-how in mechanical dispersion processes was complemented with chemical competence. The internal start-up developed a deep understanding in dispersing nanoscaled metal oxides. Today, with the business group 'Nanotechnology' and specifically its Oxylink™ product series, Bühler extends its role as production technology supplier by offering highly specialized additives to its



Advanced Materials customers.

Many key benefits of nanoparticles like chemical activity, optical, and mechanical properties depend on the dispersion quality. Bühler's unique combination of surface modification and dispersion technology permits the company to produce additives that add value to real world products.

### Focus on sustainable solutions

Bühler's 'standard nano-dispersions' of metal oxides such as titania, zinc oxide, and iron oxide, offer a fast and easy approach to nanomaterials. The particles are available in water and organic solvents. However, Bühler moved beyond standard solutions by formulating Oxylink™ as a waterborne, dispersion-based, and performance-optimized additive to improve waterborne resin systems.

Waterborne coatings are sustainable high-tech products. The formulations are complex and demand optimization to achieve the ambitious goals of each application. Additives play an important part in this optimization process. To the coatings formulator, Oxylink™ is unique in offering the possibility to balance increased resistance properties with excellent ease of use. Due to the fast interaction, Oxylink™ also accelerates drying time of many waterborne formulations.

Nanoscaled performance additives are highly attractive for products and segments in which material performance is the key for success – like in coatings & paints, adhesives & sealants, textiles, functional ceramics, electronics, energy storing and production as well as dental & medical technology.

Bühler continues to develop innovative additive solutions based on nanodispersion technology for Advanced Materials applications.

## Bühler

Oxylink™

The additive for better waterborne coatings



The performance additive for waterborne 1-component formulations:

- Improved cross linking
- Faster drying
- Better blocking resistance
- Higher humidity resistance

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questions being asked of manufacturers.

All levels of government are pulling in the reins when it comes to "unhealthy" emissions. One solution is ovens that control the afterburner temperature at the half-second point to meet the most stringent environmental requirements.

With chemical paint stripping customers are looking for products that will offer speed, effectiveness and low cost. They want a simple process while minimizing up-front capital and ongoing energy costs, and doing this within the constraints of their production schedules. Chlorinated solvents were used for both cleaning the metal before painting and for stripping of defective painted work, but since volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) are now heavily regulated, the cleaning, finishing and stripping of painted work must be accomplished without using chlorinated solvents.

Special considerations for stripping of aluminum and other white metals have led to stripping products based on non-chlorinated/low volatility solvents and unique caustic compounds that work well stripping paint coatings while inhibiting impact on the reactive base metals. These highly specialized materials must be kept "dry", i.e., no water must be permitted to con-

taminate the stripping tank. However, they facilitate removal of cured paint from substrates that otherwise could not be stripped in a conventional burn-off oven.

Because of the wide array of modern paints, such as electrocoats, primers, solvent-borne, powder coatings; and substrates, such as steel, aluminum, galvanized steels, zinc and its alloys, magnesium and titanium, there is no single method or chemical product that will universally strip all coatings from all substrates.

Selection of the most appropriate process and product for stripping cured paints must be determined, keeping in mind any special environmental or industrial hygiene restrictions that may be in place.

### NEW TECHNOLOGIES

Some of the newest paint stripping products are "hybrid" technologies that combine alkaline and solvent-based components in a mixed two phase solution. The combination of the two components tends to provide very desirable results for a wide variety of coatings.

Methylene chloride-free ambient paint removers are popular in the marketplace. Apparently, one gallon of a 70 to 90 per cent active methylene chloride ambient

paint stripper can be replaced with a quarter gallon of a 70 to 90 per cent active methylene chloride alternative.

Microbes are a relatively new stripping method. These organisms remove the paint without heating the racks/hangers, but the systems are very slow if not heated, are labour intensive and require a high degree of filtration.

### STRIPPING METAL COATINGS

Although this article primarily deals with stripping paint, we should touch on the fact that there is a need for a variety of specialized stripping processes capable of removing metallic coatings. Highly specialized coatings such as low-temperature alloys on electroformed parts, flame spray coatings, anodized coatings, copper/nickel/chromium on plastic and engineering brazing alloys require very specialized removal technologies. Metallic coatings are removed for remedial reasons or as part of the manufacturing or rework process. The methods for selectively removing metallic coatings include electrolytic processes or chemical immersion and the solution chemistry can be acidic, alkaline or neutral. The applications can be for parts or for racks and fixtures. Electrolytic stripping processes were

among the first used by the metal finishing industry and are regaining popularity due to their more environmentally friendly nature. However, chemical immersion strippers are the most widely used today.

### ON SITE ADVANTAGES

Several Finishers choose to send their products off-site to be stripped, but benefits of on-site stripping include: gaining control of the stripping operation; reducing turn-around times; forecasting fixtures and rework more accurately; internalizing quality control; eliminating transportation costs; reducing the number of fixtures needed; minimizing ramp-up costs for new products; minimizing variable costs by extending fixture life; reducing scrap when one product design becomes obsolete and eliminating outsource costs.

Environmental concerns are a prominent trend when it comes to most stripping methods used during the finishing process, but technologies exist on the market to meet every need.

*Editor's Note: Some of the information for this article was provided by Chemetall US, Inc., Galaxy Associates Laboratories, Steelman Industries, Inc, Guspro and Dynamix.*

## EPSI

Engineered Products and Services Inc. (EPSI) is a leading manufacturer of masking and custom rubber products and hanging systems. Founded in 1976 EPSI is dedicated to providing the highest quality products at competitive prices. In addition to the standard products EPSI has proven itself as the innovative designer in custom applications. 500 new products are introduced into the market each year consistently. EPSI is known as the company with the most number of patented products in the masking industry. Our experienced engineers are ready to collaborate with your team in troubleshooting any masking or hanging problems that your company may have by addressing your specific needs and by planning, producing and delivering custom masking and hanging solutions that will reduce your overall production costs and increase your productivity.

#### Markets served:

- Automotive
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- Appliances
- Fabricated Metal Products
- Hardware
- Hydraulics/pneumatics/heat exchangers
- Industrial Machinery and Equipment
- Medical
- Military
- Industrial Finishing
- Plastics rubber
- Electronics
- Furniture

#### Technical Capabilities:

EPSI has a state of the art engineering facility located in Franksville, WI. We specialize in developing custom masking and hanging solutions to meet our customer's needs. Our R&D continuously creates innovative and cutting edge designs that increase productivity, eliminate re-work and decrease the labor required for application and removal of masking. We have custom molding capabilities to manufacture rubber products for global manufacturing. EPSI is a progressive company, which has become a major force through its innovative products and cost-effective designs. Our product line ranges anywhere from hi-temp masking for powder coating needs to low temperature masking alternatives for lower temperature application. We have Silicone and Teflon prod-

ucts that incorporate High Temp Magnetics as an option. EPSI specializes in many types of standard and engineered materials including: High Temperature, Flame Retardant, and Conductive Silicones; EPDM; Viton; Teflon; Synthetic and Natural Rubbers; and plastics such as ABS, LDPE, HDPE and Nylon both for standard and custom parts. We also carry High-Temperature Polyester Tapes, Crepe Tapes, Polyimide Tapes, Kapton and are a certified 3M converter and custom die-cutter.

#### Masking Products from EPSI

EPSI standard masking product range includes masking caps, plugs, stoppers, masking die-cuts, masking tapes, tubing and sheeting and hooks. We welcome you to explore all the categories to find the product that meets your needs. EPSI supplies a vast range of masking products. In addition to our standard products, EPSI specializes in rubber molding for OEMs.

#### Global Capabilities:

EPSI has 5 distribution centers strategically located across the US and Europe: Wisconsin, California, South Carolina, Indiana, Connecticut, Texas, China, and The Netherlands. EPSI is currently present in 17 countries globally.

#### Vendor Management Inventory

EPSI also offers VMI for customers desiring inventory management.

#### Contact information:

If you can't find what you are looking for, please don't hesitate to call our experienced consultants to work out a custom masking solution based on your requirements or to learn more about our rubber molding capabilities at 1-866-275-3774!  
Fax: 1-866-329-3774  
www.epsii.com

## CORPORATE PROFILE

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# Resin Challenges and Innovations

## An Update In Resins For Powder Coatings

The resin component in the formulation will largely determine the processing and end-use performance properties of powder coatings.

There are other powder coating resins that are in commercial use, but not included here because they tend to be used less frequently. (Source: [www.specialchem4coatings.com](http://www.specialchem4coatings.com))

### RESINS IN THE MARKETPLACE

Powder coating resin manufacturers strive

to offer sustainable solutions.

Some powder coating resins have a high molecular weight that promise high-strength performance. In powder form, they are easier to handle than liquid coating systems, and can have high plasticizer uptake capabilities, giving the processor a variety of compounding options.

Certain polyester resins are 100 percent thermosetting-powder-polyesters with either (OH) hydroxyl or (COOH) carboxyl functionality. These products can

be combined with curatives such as blocked polyisocyanates, triglycidyl isocyanurate (TGIC),  $\beta$ -hydroxyalkylamide (HAA) or epoxies to form high quality, cost-effective, environmentally friendly polyurethane powder coatings.

In big demand is the development and production of environmentally friendly powder coating resins. Polyester powder resin technologies or powder coatings, which are environmentally friendly, account for a significant portion of the industrial finishing market.

One innovation is breakthrough technology to produce polycarbonate resins from CO<sub>2</sub>. It is science that could have a major impact on the planet.

Then there is corrosion resistance, such as vinyl ester and bisphenol fumarate resins that have proven themselves in some of the harshest environ-

ments imaginable. Case histories of service in environments such as pulp & paper production for 40+ years prove the dependability of these products. For certain applications, flame-retardant composites are required and there are several resins that meet fabricator and regulatory requirements and certifications.

Powder coating polyester/epoxy hybrid resins offer a unique combination of benefits. Delivering good flow, non-blooming, and with good storage stability.

Resins have been developed to solve the persistent challenge of poor appearance due to low temperature curing. Excellent flow is achieved when curing certain resins at lower temperatures, matching the flow quality of current resins cured at 20°C higher temperatures.

With all the demands and solutions required by the end user, the powder

#### Thermosetting powders

Epoxy  
Epoxy - Polyester Hybrid  
Urethane Polyester  
Polyester TGIC  
Acrylic

#### Thermoplastic powders

Polyvinyl Chloride  
Polyolefins  
Nylon  
Polyester  
Polyvinylidene Fluoride

## CORPORATE PROFILE

For more than 25 years, Norspec Filtration Ltd. has been a supplier of filtration products to the paint & coatings industries.

The company manufactures a full range of air filtration products for crossdraft, downdraft, prep stations and exhaust style paint booths. No matter what the application, intake air filters, ceiling media, prefilters, extraction bags, or paint exhaust filters, Norspec has the filters to meet the customer's needs.

#### Intake Air Filters

Intake filters are as important to a great paint job as the booth itself. The intake filters are the primary defense against foreign particles landing on the painting surface. Any particle larger than 10 microns can cause a defect on a paint job. With four different intake filter

panel styles to choose from, Norspec has the best selection in the industry.

#### Exhaust Filters

Exhaust filters play an important role in maintaining proper air flow balance, increasing cleanliness of exhaust stacks, reducing maintenance of the exhaust system, and controlling volatile organic compound (VOC) emissions. The purpose of any exhaust filter is to capture over-spray particles and remove them from the airstream as air is removed or recirculated back into the booth.

Norspec offers the largest selection of weights, thicknesses, densities, sizes and constructions available in the industry. The company continues to offer the right product at the right price, with new products being developed everyday. From custom cut blankets to standard size pads,

## Norspec Filtration

special care is taken in proper product selection to insure providing a tailored filtering system with respect for all variables present in a finishing environment.

#### Diffusion Media

Diffusion media is used to filter the final air found on both downdraft booths and prep stations. Their function is to spread the air flow evenly over the piece being painted, and to filter out any dirt particles that may get past the primary filters. Depending on the make of the downdraft booth or prep station, there are a variety of diffusion styles that can be used. Each style has a different air flow characteristic, but is capable of stopping and

capturing all dirt particles that cause paint defects. Norspec offers the finest diffusion media produced and provides it in pads, blankets or rolls.

#### Powder Coat Filters

Norspec offers a full range of powder filter cartridges in all media styles and sizes to fit any powder coating system, including all the major OEM brands. Media styles include pleated paper, 80/20, fire resistant 80/20, spun bond polyester, moisture resistant polyester, anti static aluminized polyester, nano fiber and PTFE laminated membrane cartridges.

#### Final Filters

In addition to one of the widest selections of replacement powder cartridge filters, Norspec also stocks a wide variety of final filter replacements for all major OEM brands. High-temp filters, ASHRAE, Mini-pleat, and carbon cell final filters are all available in the full range of configurations to match the performance and fit of the OEM filter. All are available in standard and custom sizes.

#### Total Filter Management

Finally, for large scale operations Norspec Filtration Ltd. developed its "Total Filter Management" system program. The "Total Filter Management" programs brings together Norspec's team of product specialists, customer service representatives, account managers and upper management to work together to help reduce overall cost. Norspec's buying power, experience and expertise enables customers to benefit through economics of scale, reduced administrative costs and increased efficiencies leading to lowest Total Cost of Ownership.

In today's ever changing marketplace, customers need a company who understands their needs, and has the expertise and experience to understand the process, troubleshoot the problem and then offer the best products for any particular application. Norspec understands that customers may not know the best filter product for their application, that is why the company's team of trained sales professionals are available to be on site within 24 hours to assist with all filtration needs.

One of the leaders for the Canadian paint & coatings industries – Norspec Filtration Ltd. celebrating 25 years.



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- Paint Arrestors
- Intake Air Filters
- HiTemp Filters









coating resin industry has continuous innovations and rises to the challenge to meet every need in paint and coating performance.

### GLOBAL ACRYLIC RESINS MARKET TO EXCEED 16.4 BILLION POUNDS BY 2015

Global Industry Analysts Inc. has released a comprehensive global report on the acrylic resins market. The global market for acrylic resins is forecast to exceed 16.4 billion pounds by the year 2015.

Demand for acrylic resins was negatively impacted by the global economic recession in 2008 and 2009. Significant declines in various end-use markets, including coatings, paper and paper-board, plastics, adhesives, construction, and textiles and fibers, hampered acrylic resin demand. However, sectors such as the do-it-yourself market segment were minimally impacted, driven by a shift in consumption patterns.

Going forward, the resins market bounced back by 2011 and will grow steadily in subsequent years. New product introductions that focus on performance are likely to help resin manufacturers. Developing markets such as Asia-Pacific and others are expected to infuse

increased demand for resins and emerge as the hub for resins production.

Europe represents the largest regional market for acrylic resins worldwide. In terms of growth, Asia-Pacific is expected to register the fastest growth for acrylic resins. The region is forecast to have a compound annual growth rate of more than three percent over the period 2007 through 2015. The United States represents another major market for acrylic resins.

The coatings sector constitutes the largest end-use of acrylic resins. Acrylic-based coatings deliver improved colour stability, flexibility, weatherability and enhanced finishes. Consumption of acrylic resins by end-use markets is projected to exceed 4.4 billion pounds by 2012.

Greener products are emerging as a lucrative opportunity for acrylic resin manufacturers. Addressing the needs of eco-friendly and greener requirements for end-use industries has become a prime focus for resin manufacturers.

[www.strategy.com/Acrylic\\_Resins\\_Market\\_Report.asp](http://www.strategy.com/Acrylic_Resins_Market_Report.asp)

## Calendar of Industry Events 2012

**January 2012 - April 2012:** Online Certificate in Industrial Wood Finishing  
<http://cawp.ubc.ca/Training>

**February 18, 2012:** The Strike Out Arthritis Coatings & Plastics Industry Charity Challenge, 11:30 a.m. to 4:00 p.m. at ClassicBowl 3055 Dundas St. W. Mississauga L5L 3R8. For more information, please call 905.455.6273, ext. 221 or 1.888.434.0009, ext. 221. Register online at [www.arthritis.ca/onevents](http://www.arthritis.ca/onevents)

**February 28-March 1, 2012:** IPC APEX EXPO, San Diego, CA, [www.ipcapexexpo.org](http://www.ipcapexexpo.org)

**March 20-22, 2012:** FABTECH Canada, Toronto, ON, [www.fabtechcanada.com](http://www.fabtechcanada.com)

**April 10-12, 2012:** ECOAT 2012 will be held at the Rosen Centre Hotel in Orlando, Florida. [electrocoat.org/conference](http://electrocoat.org/conference)

**April 30 - May 2, 2012:** Radtech Chicago IL, [www.radtech.org](http://www.radtech.org)

**May 7-10, 2012:** American Coatings Conference and Show, Indianapolis, IN, USA, [www.american-coatings-show.com](http://www.american-coatings-show.com)

**May 14-16, 2012:** Montreal Manufacturing Technology Show, Montreal, QC, [www.sme.org](http://www.sme.org)

**June 6-8, 2012:** CACD's 26th Annual General Meeting, Whistler BC. Online registration at [www.cacd.ca/agm](http://www.cacd.ca/agm), or email to [Fatima@cacd.ca](mailto:Fatima@cacd.ca), fax to 905-844-5706.

**June 11-13, 2012:** SURFIN Las Vegas, NV, [www.nasf.org](http://www.nasf.org)

**October 9-11, 2012:** Coating 2012, St. Louis, MO, [www.thenaicoatingshow.com](http://www.thenaicoatingshow.com)

**November 12-14, 2012:** FABTECH, Las Vegas, NV, [www.sme.org](http://www.sme.org)

## Erie Powder Coatings

Erie Powder Coatings (EPC), a custom manufacturing specialty powder coatings company, offers products with many advantages and solutions. Whether you are looking for anti-graffiti, SEFA laboratory grade products, fast cure powders, or a powder coating colour that you need on time, Erie Powder helps make your job easier.

Erie manufactures a wide variety of standard thermoset coatings, including polyester TGIC, TGIC-Free and polyester urethanes, epoxy, hybrid and acrylic hybrid coatings, but custom manufactured powders are our specialty.



### SEFA Grade

Erie Powder offers two lines of SEFA grade products. SEFA (Scientific Equipment and Furniture Association) sets standards for laboratory furniture and cabinets. EPC has been active in this market and has qualified both epoxy and urethane products that meet or exceed these specifications. While this is a select and niche market, Erie has found this market to be a strong one.

### Fast Cure

Another specialty that Erie excels in is Fast Cure product lines. One of the primary reasons for this is Erie's use of specialty Swiss made plastics extruders that are better at producing low-cure temperature coatings than other types of extruders.

### Two Facilities

With two facilities, our original powder manufacturing plant in Grassie, Ontario, and the newer facility in North East Pennsylvania under the EPC powder label, Erie is able to assist all of our customers on both sides of the border. Erie also supplies coatings into South America and the Caribbean.

Manufacturing powder coatings in Niagara since 1994, Erie has built up a strong customer base. The company is very flexible, able to manufacture products from 10,000kg or more down to a single box. The recent addition of the US facility near Erie PA has added a great advantage for Erie's customers, many of which also have operations on both sides of the border, to purchase from both facilities.

Erie Powder Coatings is proud to be ISO 9000 compliant.



### Anti-Graffiti

Erie offers a very strong and varied line of anti-graffiti products. The key to the use of these AG coatings is not that graffiti cannot be put onto them, but that the graffiti can be cleaned from them without doing any damage to the product surface.

Four separate chemistries are available for AG applications from Erie, but the newest and most popular product is the hybrid anti-graffiti product. This product is substantially different from others on the market. Other AG products are expensive, difficult to use and often contain a number of hazardous ingredients. Erie's hybrid AG products have the distinct advantage of being fast cure, but oven stable, and free of TGIC and isocyanate.

Anti-graffiti powders from Erie are also available in epoxy, epoxy-acrylic and urethane chemistry. Each of these types of powders offers its own advantages. The urethane products, for example, are exterior durable and can be used for exterior furniture or installations.

## CORPORATE PROFILE

# ERIE Powder Coatings



not just black & white...

For a colour brochure call us: 905-957-4086

# ENHANCED PERFORMANCE

## with Low Voc Additives

The manufacture and inclusion of additives with Low Volatile Organic Compounds (VOC) in latex waterborne coatings is driven by environmental awareness.

### COMPATIBILITY

Additives will only function if they are compatible with the waterborne systems and this becomes a challenge with water's high variability in pH values. The heterogeneity of emulsion systems add to the complexity. The high complexity of low-VOC formulations make it challenging to provide a targeted effect that works in a broad range of formulations.

Drying time is a big concern and manufacturers have addressed this with various products that reduce the drying time

plus increase productivity and resistance properties.

### INNOVATIONS AND SOLUTIONS

Oxylink by Buhler is an additive specifically designed for waterborne paints and coatings. Formulations containing Oxylink can be processed into clear, transparent and haze free coatings. It improves drying time and cross linking that in turn improves solvent and humidity resistance as well as blocking resistance, hardness and it is versatile. Oxylink is derived from a ZnO nanoparticle dispersion in water that was further formulated for compatibility and performance. It is a dispersion of specially stabilized and formulated metal oxide particles in water providing ready-to-use functionality. It can signifi-

cantly increase the blocking resistance, both on plastic and on wood substrates. The drying time to reach tack free can be reduced by more than 50 per cent. These two results, together with the increased solvent and humidity resistance can be explained by an increased network density caused by interaction with the nanoparticles. Oxylink has no negative impact on other coating properties including adhesion, abrasion resistance, water permeation or optical appearance. Nanoparticles as coating additives can significantly improve the overall usage properties of waterborne coatings.

In industrial applications, the performance in end use and productivity are equally critical in determining whether waterborne coatings can pro-

vide an acceptable alternative to established technology.

When it comes to low VOC latex additives, formulators must consider the additives' net contribution to VOC content, and whether or not the additive addresses the performance challenges related to reducing overall VOC content. For example, film formation becomes more difficult when the last bit of solvent is removed from a low-VOC paint. Coalescents traditionally solved this problem, but can have an adverse effect on film properties, such as dirt pick-up resistance or tack, in the end formulation. In addition, low-VOC paints more susceptible to freeze/thaw problems, which compromises their effectiveness in cold climates. There are additives on the market that provide solutions.

## CORPORATE PROFILE

FLUID HANDLING, ATOMIZATION, ELECTROSTATIC & CURING

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## ITW Industrial

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The Binks, DeVilbiss, Ransburg and BGK brands from ITW Finishing Equipment – Americas are among the global leaders in industrial finishing equipment. Always in the forefront of the most advanced, most innovative finishing technology, our brands comprise a group of proven finishing equipment that offers comprehensive capabilities to meet your toughest quality and productivity challenges. Backed by a network of resources and support, Binks, DeVilbiss, Ransburg and BGK brands lead the way.

Binks spray finishing equipment can be found in virtually every industry around the world – for a very good reason. A pioneer in the development of the first spray guns more than a century ago, Binks continues to set the standard in finishing technology. Binks product line is unmatched for its comprehensive selection of spray guns, pumps, tanks, filters, outfits and more. [[www.binks.com](http://www.binks.com)]

DeVilbiss is always on the leading edge of spray finishing technology and it's no surprise. When ultimate quality and productivity are the objective, DeVilbiss delivers. No matter how or what you spray, you can count on DeVilbiss spray guns and finishing equipment for the finest, most consistent atomization performance available. [[www.devilbiss.com](http://www.devilbiss.com)]

Ransburg electrostatic spray finishing takes less time, saves coating material and reduces solvent emissions. Ransburg invented this time-proven process and is the world leader in electrostatic finishing equipment and technology. For every surface, there's a complete Ransburg system or equipment package to help you spray it with optimum transfer efficiency and atomization. [[www.itwransburg.com](http://www.itwransburg.com)]

BGK electric infrared curing equipment does what it's designed to do – increase production, reduce costs and improve product quality. If your industrial finishing

operations include the curing of liquid, powder or other coatings, you know about production issues. So does BGK Finishing Systems. Where coatings productivity is a challenge, BGK has the cure. [[www.itwbgk.com](http://www.itwbgk.com)]

Want to conserve resources and reduce costs in your finishing operations? Ask your distributor about GreenWorks, our support program for end-user spray finishing customers. It provides helpful information and solutions from a green perspective. We're using technology to make our products, facilities and operations more conservation conscious and eco-friendly – and GreenWorks will show you how to do the same for yours.

Binks and DeVilbiss distributors also offer a very helpful 3-step program for industrial finishers. Called the Finishing Tuneup, it's custom designed to help you examine productivity, quality and profitability. Step 1 is a review of your production area operations. Step 2 is assessment and evaluation. Step 3 is a plan of recommendations. The Finishing Tuneup is a great way to get expert input that can help you meet your finishing challenges.

We've joined our brands together in a new group, but our focus remains the same: meet your finishing production needs today; anticipate tomorrow's changes and be the first to respond with solutions; use our resources and technology leadership to deliver the best finishing equipment; make finishing easier and more efficient. ITW Finishing Equipment – Americas. One company. Four brands. A complete finishing solution. [[www.itwfea.com](http://www.itwfea.com)]



One of Dow Coating Materials innovations is ACID SUPPRESSION Technology. It allows the development of high-efficiency HEUR rheology modifiers without using solvents or surfactant additives. Customers want higher levels of performance and help with total formulation cost. They're looking for greater hiding and solutions that address sustainability trends without increasing costs. Technology innovation resulted in paint-and-primer-in-one products, but there is demand to take it to the next level with a true one-coat hide. Traditionally, higher hiding meant more TiO<sub>2</sub> (the most common white hiding pigment), but it can be done with less. TiO<sub>2</sub> is expensive and in tight supply globally. Dow's ROPAQUE polymers stretch the hiding performance of TiO<sub>2</sub>, so formulators can make a high performance paint at a lower total cost. Additives have been designed to both reduce TiO<sub>2</sub> and VOC content in solvent-borne alkyd gloss and semi-gloss paints, while maintaining or improving hiding properties.

Inortech Chimie, a specialty chemical company, supplies performance additives to a variety of paint and coating applications. During formulation, low VOC additives can result in: enhanced surface

**Manufacturers of additives are helping formulators meet the increasing demand in the marketplace for low VOC water based paint and coatings that dry quickly and perform well and much more.**

wetting, improved coating adhesion to substrate, superior dispersion stability and gloss, enhanced color development and stability and better foam control.

LOW VOC film modifiers focus on open time development without property reduction in coating; Can be substituted for conventional coalescent/humectants; Maintains scrub resistance; Shows good color acceptance; Little to no influence on color strength and Produces superior gloss

When waterborne coating systems are formulated as low-VOC or VOC-free, the rheological additives must comply with the strict, modern-day requirements on environmental compatibility.

Nuplex offers a series of selfcrossing Acrylics that allows formulators to develop LOW VOC formulations with outstanding overall performance. Hauthaway offers Solvent free aliphatic polyurethane dispersion that offers light fastness and exterior durability with minimal effect on the environment.

Eastman Chemical Company Research Laboratories has done some research on developing low VOC additives to improve open time and wet edge in aqueous coatings.

One of the challenges of formulating

waterborne coatings is achieving an acceptable balance of properties both during the film application and drying process as well as in the final film. This difficulty is compounded by regulations relating to the reduction of VOCs in architectural coatings. There is a challenge between requirements for adequate workability time of the coating and appropriate film formation and recoating. The period in which irregularities in a freshly applied coating can be repaired without resulting in brush marks is referred to as the open time, while the period in which a coating can be applied over an existing paint film without leaving lap marks is deemed the wet edge time. Molecule alkylene glycols such as ethylene and propylene glycol are used in waterbased coatings as humectants, but are limited in use because they are considered to be VOCs. Low VOC additives have been developed to improve open time and wet edge in waterbourne coatings.

Manufacturers of additives are helping formulators meet the increasing demand in the marketplace for low VOC water based paint and coatings that dry quickly and perform well and much more. ■

## Caps'n Plugs

Caps'n Plugs is a leading Canadian distributor and custom manufacturer of plastic and rubber injection mouldings, vinyl dip mouldings, compression mouldings and extrusions. We have an extensive product line of caps, plugs, grommets and handle grips for shipping protection, paint/plate masking and product finishing for virtually any application.

Our sales team is focused on finding solutions for our customers. If a suitable part does not exist in our standard product line, we can design, prototype and produce the correct part. Caps'n Plugs strives to find the best and most economical solution for our customers. Our team is committed to achieving complete customer satisfaction with our service and products.

### Masking Solutions

Caps'n Plugs carries a multitude of masking products – tapered plugs, pull tab plugs, flange pull plugs, caps, tape, and more – that can be used for all high temperature painting, coating, plating, and preventing welding spatter getting into threads. All our silicone or EPDM rubber parts can withstand repeated painting and bake cycles.

### Here is a sampling of some of our masking products:

- Tapered silicone plugs are recommended for plugging blind holes during powder coating/e-coating and are able to withstand high curing temperatures. The material that tapered silicone plugs are made of also offers protection against harsh chemicals. Tapered silicone plugs are suitable for threaded or unthreaded holes.
- Silicone pull plugs are ideal for plugging threaded or unthreaded through holes during powder coating or e-coating. These silicone pull plugs can withstand high temperatures and ensure a tight seal in objects.
- Silicone dual flange pull plugs have a flange at each end so when they are pulled into a threaded hole the plug flanges effectively mask the thread lead-in bevels and the threads.

- Silicone caps are exceptional in masking external threads or pins. Their soft rubber/silicone material can even stretch to fit odd sizes or irregular shapes.
- Our flexible silicone foam easily compresses to seal off grooves or holes. The best part about this flexible silicone foam cord is that it seals irregular shaped holes. We also stock silicone tubing ideal for a variety of applications.
- We stock a variety of polyester, polyimide, hi-temp crepe and other paint masking tape in logs that we are now able to slit to whatever roll width you require if it is not already on our shelves. Our PRO-20 Sandblasting tape has far more effective at masking off during sandblasting than the commonly used duct tape. Our economical high temperature masking disks are ideal for taping off holes, grounding areas around holes and circular machined surfaces. These high temperature masking discs remove cleanly from surfaces without leaving any residue behind.

Caps'n Plugs has been in business since 1974 and is a leading distributor/custom manufacturer of paint, plating, sandblasting powder coating and e-coating masking and tape. We have the largest inventory of silicone and rubber painting masks in Canada ready for immediate shipment.

If you need to mask off studs, pins, threaded holes or any part of item that you painting, plating or blasting, Caps'n Plugs can help! If you have requirements for a non-standard mask, our custom prototype masks, piece prices and production tooling are the lowest available in Canada. Caps'n Plugs moved to a much larger facility in Brampton 18 months ago to better serve our customers.

## CORPORATE PROFILE

# Caps'n Plugs®

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- **Best prices for standard maskings in Canada.**
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# Toxicity TRENDS

BY DAVE SAUCIER

LAST ISSUE I started the article with “hold on to your hats as we start a very busy 2012 on the regulatory front”. I wasn’t kidding and Environment Canada has not disappointed. The Chemical Management Plan Phase 2 kicked off the new regulatory season on December 17, 2011. The end point for all this activity is to determine which existing substances appearing on the Domestic Substances List (DSL) are in fact toxic, and what the government and industry can do about newly identified toxic substances. Toxicity trends are going to continue to drive research and development and new technologies to meet consumer demand and corporate sustainability commitments.

The opening kick-off started with the Petroleum Sector Stream 4 that could

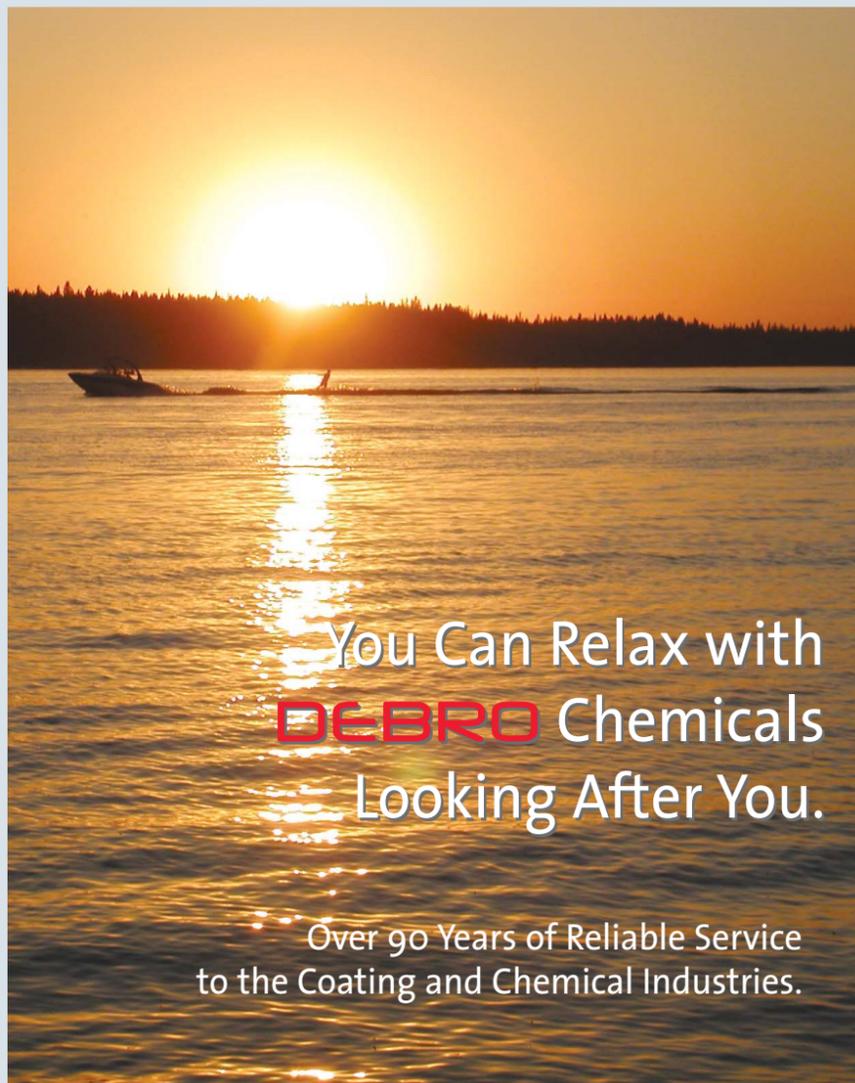
have a bearing on the coatings industry. Many of the Stream 4 substances that cover a range of petroleum distillates are used by industrial paint manufacturers and include various of types Naphtha. The outcome on the toxicity for some or all of these substances may force formulators to replace those that meet the criteria for toxicity. No one should be surprised if test data starts to point to a trend towards identifying more types of naphtha as being carcinogenic.

The government converted the kick off to run to the next step of CMP2 and the much discussed and anticipated Aromatic Azo and Benzidine substances mandatory survey. Close work and cooperation between Environment Canada, expert members of the CEPA Industry Coordinating Group (ICG), and some manufacturers who volunteered data resulted in a



Regulatory Regime	Planned Government Action	Number of Substances	Rationale for Action	Timelines
Canadian Environmental Protection Act, 1999 (CEPA 1999)	<b>Challenge Initiative:</b> Completion of final <b>Batch 11</b> and <b>Batch 12</b> assessments. Risk management actions from the first phase of the CMP.	<b>Batch 11</b> and <b>Batch 12</b> final assessments and assessment of <b>other chemical substances of interest</b> . <b>Risk management action milestones</b> on all Challenge substances from the first phase of the CMP posing a risk.	These substances were identified as high priority for action following the categorization process. High priority substances were those that were: <ul style="list-style-type: none"> <li>Persistent, bioaccumulative in the food chain, inherently toxic to the environment, and are known to be in commerce in Canada; and/or</li> <li>A high hazard to humans with a high likelihood of exposure to individuals in Canada.</li> </ul>	Batch 11 was published in September 2011 and Batch 12 is scheduled to be published in November 2011. For those substances subject to risk management, risk management actions are to be taken within 3.5 years of the final assessment and statement that the Minister's propose that the substance be added to Schedule 1 of CEPA 1999.
Petroleum Sector Stream:	Completion of <b>Petroleum Sector Stream</b> assessments from the first phase of the CMP, and as needed, risk management	164	These substances were considered a high priority following categorization, but were set aside from the Challenge program in the first phase of the CMP in order to be addressed under a sectoral approach.	Streams 1-3 remaining draft and final assessments to be published in 2011 to 2013. Stream 4 draft assessments to be published in 2013 to 2016. For relevant substances, risk management actions are to be taken within 3.5 years of the final assessment and statement that the Minister's propose that the substance be added to Schedule 1

## CORPORATE PROFILE



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## Debro Chemicals

Debro Chemicals Inc. was first established in Canada in 1921 as a distributor of raw material used in the manufacture of paints and coatings, and today is recognized as one of the industry's most respected organizations, able to attract, and retain long-term relationships with many of the world's top manufacturers of coatings raw materials, from pigments, resins and additives to performance minerals from among its valued principal partners. Part of Nova Capital Inc., an equity company based in the UK, Debro Chemicals is positioned to provide coatings manufacturers across Canada with a competitive source of many key products.

With industry veterans like Bert Papenburg in Eastern Canada, Vernon Lo and James Andru in Western Canada, Gagan Jain and Yvonne Heise in Ontario and Paul Proulx in Montreal, Debro can boast having one of the very best Technical Sales and Product Management groups serving the coatings industry in the country.

### Facing Challenges

Debro is keenly aware of the challenges facing their customers in today's economic environment, especially those that rely heavily on exports. Through innovative programs to improve internal operations and by using the latest in supply chain management techniques, Debro is doing its best to increase service and yet keep costs to a minimum and wherever possible, pass savings along to its customers.

### Where is Debro heading?

Debro Chemicals has long been a pioneer in the distribution business in Canada and key to the company's continued longevity and unparalleled success, will be a strong understanding of where Debro came from and creating a culture that will attract and retain the best and the brightest people in the industry.

### Debro People in the News

Ron Yetman has retired in December 2011 and he thanks his many well wishers for your heartfelt farewells.

Lori Oboyle has just joined Debro as the new Account Manager for our Ontario Foods territory. Lori has an extensive background with over 12 years in food and related industrial chemicals.

Yvonne Heise has just joined Debro as Account Manager for our Ontario CASE territory, replacing Ron Yetman. Yvonne has a solid background with over 10 years in CASE and related chemical industries.

James Andru has very recently joined Debro as Account Manager in Western Canada based in Vancouver. James has over 10 year background in CASE chemicals and 10 years in Environmental Services.

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much more focused survey. The trend here is that engaging the government and volunteering available data provides efficiencies to all stakeholders.

All Canadian paint manufacturers should be looking very closely at their supply chain partners to ensure that raw material suppliers are actively engaged with Environment Canada to ensure that data being sought by the government via the Section 71 mandatory survey tool is provided. This will result in scientifically based outcomes rather than conservative guesstimates that result in the issuance of Significant New Activity (SNAC) orders on existing substances. Your supply chain partners also include many companies in the chemical distribution sector. You'll want to ensure that those you do business with have experience with CEPA surveys and that they are aware of the stakes as the potential for supply disruption becomes increasingly worrisome for those distributors who don't engage the government. The trend here is that for every substance that the government receives no data or reply, Environment Canada will consider the substance to "not" be in commerce. The unintended consequence is that, for lack of a better term, the substance becomes unofficially de-listed from the

DSL with the imposition a SNAC for "any use" in Canada, usually requiring a New Substances Notification (NSN) package to be submitted for use in Canada.

This trend of issuing SNACs by Environment Canada is leading to the real possibility that both you and your suppliers could find themselves in an instant non-compliance issue if they are importing significant volumes of one of more of your coating raw materials. Whereas in the past the NSN regulations affected only the Canadian substance manufacturer and importer, a SNAC could require a Canadian paint manufacturer to submit an NSN for a raw material they use. Paint manufacturers must monitor their suppliers to protect their own supply interests and insist on supplier cooperation with Environment Canada.

The next topic I'm going to cover is the global regulatory trend regarding existing national chemical inventories. Most everyone is aware of or has heard of Europe's Registration Evaluation Authorization and Restriction of Chemicals known as REACH, the Toxic Substances Control Act (TSCA) in the United States and our own Canadian Environmental Protection Act Version 1999 (CEPA). The challenge we are all faced with is that the regulating

community is so far out of step with reality in regards to the global paint market. In fact, there is a growing concern that REACH could become the global standard on how existing chemicals are going to be assessed. Canada has a well balanced approach to accomplish this task and all stakeholders applauded the continuation of CMP. Our closest friends south of the border in the US continue to grapple with how they are going to tackle the monumental task of assessing the TSCA inventory. No one wants or needs a REACH type of regime on the assessment of existing chemicals. It will be exceedingly expensive and drive the cost of raw materials skyward to support the expense of developing the toxicity and physio-chem data demanded by REACH – then to have a bureaucracy sit down and evaluate the absolute mountains of data that will stream in.

Canadian Prime Minister Harper and US President Obama signed the historical perimeter security and regulatory cooperation deal in early December 2011. This is good news for the coatings industry if we can get the regulatory cooperation jump-started. Whatever the US does with their assessment and evaluation of the TSCA inventory will have profound effect on

Canada going forward. Hopefully our close friends in the US will confirm what all stakeholders agree and that Canada's CMP is the right way to go.

Oh, I almost forgot, the Occupational Health and Safety Administration (OSHA) submitted their proposed regulations for the Globally Harmonized System (GHS) and it is now sitting with the US Office of Management and Budget for a final rule due out sometime later in January 2012. Although the trend is to globalize on worker right to know communication methodology, GHS will have some serious cost implications to the entire paint and coating industry for the redesign of labels and paint product safety data sheets.

I'll close out and continue the annual trend of wishing everyone a safe, healthy and Happy New Year – bring it on! ■

*Dave Saucier is Vice President of HDTS Chemicals Inc. ([www.bdtschemicals.com](http://www.bdtschemicals.com)) and is seconded to the Canadian Association of Chemical Distributors as Manager, Regulatory and Government Affairs. Dave is a member of the ICG Surveys Sub-Committee that works closely with Environment Canada. For further information please contact Dave at 905-631-1962 or by email: [dave@cacd.ca](mailto:dave@cacd.ca)*

## CORPORATE PROFILE

# Unimin

Unimin Corporation is a worldwide supplier of engineered mineral fillers to the paint and coatings industry. Our broad product range provides a matrix of physical, chemical and functional properties, and offers paint and coating manufacturers easier access to more formulating solutions. Whether your objective is brightness and color development, transparency or hiding power, chemical and UV stability green formulating or cost management, we can provide a solution.

### Brilliant Additions:

The Brilliant Additions portfolio represents our industry's largest selection of reinforcing silicate fillers and extender pigments. These products are proven performers in architectural paints, original equipment manufacture (OEM) and powder coatings, wood finishes, and industrial and marine coatings.

Unimin employs advanced production technologies and quality management systems to insure product consistency and uniformity. From mining to product delivery, our goal is to exceed responsible care guidelines while delivering products and services that help our customers satisfy their regulatory and sustainability objectives.

As reduction of organic solvents and volatile organic compounds becomes an increasingly important objective, the Brilliant Addition portfolio can be a valuable formulating tool. Our fillers and extenders add functional performance in waterborne, high solids and powder coatings to produce environmentally friendly coatings. In oil, alkyd and solvent-based systems these products provide the low viscosity properties needed to meet high solids and low VOC requirements.

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# NANOSTRUCTURED Cobalt-Phosphorus Alloys

**THIS ARTICLE** introduces some of the key features and highlights the performance enhancements offered by nanostructured materials, specifically Nanovate CoP. This proprietary nanostructured alloy produced by patented electrodeposition processes was developed by Integran as a high performance alternative to electrolytic hard chrome (EHC).

Integran Technologies, Inc., based in Mississauga, ON, has been a pioneer in advanced nanostructured materials for over a decade. Gino Palumbo, President and CEO of Integran expects widespread adoption of the technology in diverse industrial sectors. Integran Technologies, Inc., based in Mississauga, ON, has been a pioneer in advanced nanostructured materials for over a decade.

"We are engaged in converting a lot of the concepts and ideas into real-world applications and the response from our industrial partners has been excellent,"

says Dr. Palumbo.

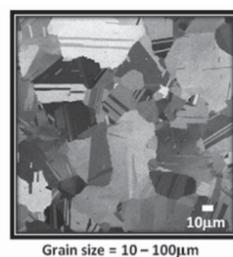
One example of Integran's nanostructured materials is Nanovate CoP. This proprietary nanostructured cobalt-phosphorus alloy produced by patented electrodeposition processes was developed as a high performance alternative to electrolytic hard chrome (EHC). The following article introduces some of the key features of the technology and highlights the performance enhancements offered relative to EHC.

Industrial Implementation of Nanovate CoP: nanostructured cobalt-phosphorus Electrolytic hard chromium plating (EHC) has been facing increasing environmental, health and safety regulations over the past three decades. Integran Technologies, Inc. has developed a proprietary nanostructured cobalt-phosphorus alloy (Nanovate CoP) as an alternative to electrolytic hard chrome (EHC) for both line-of-sight (LOS) and non-line-of-

sight (NLOS) applications. This Nanovate technology is an environmentally compliant alternative to EHC and is fully compatible with the existing EHC infrastructure. Nanovate CoP exhibits higher cathodic efficiencies and deposition rates than EHC, thus yielding higher throughput, reduced plant footprint and reduced energy consumption. The technology also offers significant performance enhancements over EHC, including superior sliding wear, lubricity, corrosion protection and fatigue resistance.

While several alternative technologies have been specified for specific applications, Nanovate CoP offers unique material properties, which may not be easily achieved by conventional materials. Nanostructured metals have an average grain size of <100 nm (Fig. 1) and benefit from the Hall-Petch strengthening mechanism. They are fully dense and show improved hardness (3-5× increase), yield strength (5-9× increase), ultimate tensile strength (3-5× increase) and coefficient of friction (up to 50 per

## COARSE-GRAINED



## NANOSTRUCTURED

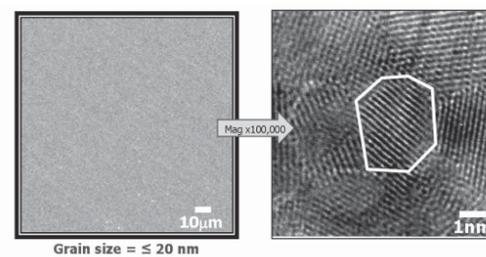


Figure 1: Electron micrographs of (a) a coarse-grained metal and (b) nanostructured material (Left) and magnified 100,000× (Right). A single grain of the nanocrystalline metal is outlined in (b).

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**Table 1 - Comparison of nCoP and EHC processes.**

	nCoP	EHC
Deposition method	Electrodeposition	Electrodeposition
Applicable geometries	LOS and NLOS	LOS and NLOS
Efficiency	85 - 95%	15 - 35%
Deposition rate	0.003 - 0.004 in./hr	0.0005 - 0.001 in./hr
Emission analysis	Below OSHA limits	Cr+6

cent reduction). These properties have tremendous possibilities in enhancing material performance in a variety of applications.

Figure 1: Electron micrographs of (a) a coarse-grained metal and (b) nanostructured material (Left) and magnified 100,000× (Right). A single grain of the nanocrystalline metal is outlined in (b).

## PROCESS

Table 1 demonstrates the significant process improvements offered by Nanovate CoP over EHC. As Nanovate metals are produced by electrodeposition, it represents a “drop-in” alternative technology that is fully compatible with the current EHC infrastructure and is well-suited to LOS and NLOS surfaces. However, unlike EHC, the Nanovate CoP process utilizes uses environmentally-compliant materials and does not generate hazardous emissions or by-products. The high cathodic current efficiency and plating rate of Nanovate CoP results in a significant reduction in the energy consumption, an increase in production throughput and a reduced plant footprint in comparison with the EHC plating process. The technology also offers significant performance enhancements over EHC, including superior sliding wear, lubricity, corrosion protection and fatigue resistance.

## MATERIAL PROPERTIES

Table 2 shows the properties of Nanovate CoP compared to those of EHC. Visually, Nanovate CoP coatings are uniform and shiny, similar to EHC. Unlike EHC, however, the Nanovate CoP coatings are fully dense and free of pits, pores or cracks. Metallurgically, Nanovate CoP exhibits a hexagonal close-packed structure, the equilibrium structure typically found in conventional polycrystalline cobalt at room temperature. The deposit has an average grain size of 5-15 nm as measured by direct observation in bright-field imaging using transmission electron microscopy (TEM). As a result of its nanocrystalline structure, Nanovate CoP provides an optimal combination of strength and ductility.

The Nanovate CoP displays significant increases in hardness and strength relative to coarser-grained, conventional cobalt. Through a combination of solid solution hardening and Hall-Petch strengthening mechanisms, microhardness values range from 530 to 600 VHN for Nanovate CoP compared to approximately 290 VHN for its polycrystalline counterpart. The microhardness of Nanovate CoP increases by up to 150 VHN following heat treatment at 375°F (190°C), the standard temperature used for hydrogen embrittlement relief baking of high strength steels after plating processes. Interestingly, under these same

heat treatment conditions, the microhardness of EHC decreases by 100 VHN. This indicates that although EHC has a higher hardness than Nanovate CoP in the as-deposited state, their hardnesses converge at elevated temperatures. A further increase in hardness of up to 750 VHN can be obtained by using an optimal combination of temperature and time annealing conditions.

Wear loss of the Nanovate CoP coating as well as the mating material, in this case an alumina pin, were less severe compared to those of EHC. Further, Nanovate CoP has a lower coefficient of friction than EHC, which is indicative of superior lubricity. Corrosion resistance of Nanovate CoP in cabinet salt spray corrosion testing is also much improved over EHC. As a result of improved sliding wear and corrosion resistance by virtue of nanostructuring, Nanovate CoP has found use in many demanding application environments, in many cases outperforming EHC.

## INDUSTRIAL IMPLEMENTATION CASE STUDY: ENDURO INDUSTRIES LLC

Enduro Industries LLC (Enduro), a subsidiary of PTC Alliance Holdings Corp., produces and markets EHC-plated steel bars and tubing. In 2007, Enduro and Integran entered into a licensing agreement granting Enduro exclusive rights to provide Nanovate CoP to the fluid power market (marketed by Enduro as “Nano Cobalt”). Recognizing the performance advantage offered by Nanovate CoP, Enduro opted to become an early adopter of the technology. The Nanovate CoP offered customers high corrosion protection using an environmentally-compliant process for those who demand it. In 2007, Enduro installed an Nanovate CoP process line was installed at Enduro and Integran facilitated technology transition was facilitated by providing training and support provided by Integran. A small scale production process line (700 gal in volume) was used to demonstrate the robustness of the process in manufacturing Nanovate CoP-coated bar and tube products. It was also intended to allow processing of test samples for use in customer evaluations.

Enduro launched one of its first commercial products with Nanovate CoP for a customer that manufactures and supplies fluid power-driven products into the agricultural industry of Western Canada. In harvesting equipment Nanovate CoP-coated rods are now employed in place of multilayered nickel/chromium-coated bars. The customer was experiencing premature corrosion leading to a reduction in service life on their hydraulic cylinder bars used in harvesting equipment. Since the introduction of Nanovate CoP into service to replace the incumbent nickel/chromium coating in 2008, the customer has been pleased with the

**Table 2 - Comparison of nCoP and EHC properties.**

	Test Method	Applicable Standard	nCoP	EHC
Appearance	Microscopy	-	Pit/Pore/Crack-free	Microcracked
Microstructure	TEM/XRD	-	Nanocrystalline (Grain size 5 - 15 nm)	-
Hardness	Vickers microhardness	ASTM B578	530 - 600 VHN 600 - 750 VHN (Heat treated)	Min. 600 VHN -
Ductility	Bend test	ASTM B489	2 - 7%	<1%
Wear volume loss	Pin-on-disc (against Al2O3 pin)	ASTM G99	6 - 7 ×10 <sup>-6</sup> mm <sup>3</sup> /Nm	9 - 11 ×10 <sup>-6</sup> mm <sup>3</sup> /Nm
Coefficient of friction	Pin-on-disc (against Al2O3 pin)	ASTM G99	0.4 - 0.5	0.7
Pin wear	Pin-on-disc (against Al2O3 pin)	ASTM G99	Mild	Severe
Corrosion resistance	Salt spray	ASTM B117	Protection Rating 8 (1000 hr salt spray)	Protection rating 2 (1000 hr salt spray)
Hydrogen embrittlement	Mechanical hydrogen embrittlement	ASTM F519	Pass with bake	Pass with bake
Fatigue	Rotating beam fatigue	ISO 1143	Credit vs. EHC, Similar to vs. bare	Significant debit
	Axial fatigue	ASTM E466 and bare	Credit vs. EHC Significant debit	

improved performance of the Nanovate CoP-plated product.

In the future, Enduro plans to increase production capacity and fully automate process operations, in order to deliver a higher throughput while maintaining industry-leading quality. Furthermore, Enduro plans to as well as continue the development of specific fluid power market applications and , expand the understanding of the process and its impact on commercialization, and continuously improve the production cell with an emphasis on expansion and automation.

## CONCLUSION

The Nanovate CoP technology exhibits excellent corrosion, wear and fatigue performance and is a drop-in alternative solution to EHC for both LOS and NLOS applications. Enduro Industries LLC has successfully implemented the nanostructured cobalt-phosphorus (Nanovate CoP) process, for application to bar and tubing products used in the fluid power market. Integran is also working with industry leaders in wide a variety of other sectors to commercialize its technologies and expects to make announcements on these efforts regularly. ■

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TTX finishing system components are integrated into

## Therma-Tron-X, Inc.



finishing systems or stand alone units.

Multi-stage pretreatment equipment prepares your product for finishing. Using spray, immersion or combination pretreatment methods, dirt, oils and contaminants are removed from the product's surface and phosphate or conversion coatings are applied to help prevent corrosion and increase paint adhesion.

Batch ovens, conveyors ovens, infrared equipment, convection curing ovens, dry-off ovens and various custom heat processing solutions are at the heart of Therma-Tron-X's capabilities. We are experts at designing industrial ovens that fit your spatial needs and utility requirements.

Therma-Tron-X environmental rooms are designed

to provide ideal powder paint application conditions. They include air conditioning and humidity control equipment that balances airflow and minimizes overspray in addition to maintaining ideal humidity and temperature conditions.

TTX liquid spray booths provide the ideal paint application conditions that balance airflow and minimize overspray. Features include recirculated air systems, side-draft, cross draft, down draft, multi-level, man-lifts, conservative air flow, high efficiency water-wash, dry filter, high intensity lighting, sludge separation, and more.

In 1987, Therma-Tron-X built the first SlideRail Square Transfer<sup>®</sup> (SST) material handling system. The revolutionary SST system performs high volume finishing operations using a fraction of the space required by traditional monorail systems. All paint system components are contained in one compact unit and managed by a PLC. Because flexibility is one of the strengths of SST technology, each system is built from the ground up to meet your individual needs.

Introduced in 1990, Therma-Tron-X Econ-E-Coat systems offer the same high throughput as the SlideRail Square Transfer<sup>®</sup> systems, but in a smaller work envelope. Specifically designed to be portable, the modular unit can be moved as often as needed.

Monorail systems carry different sized parts through the paint application process in a continuous motion. TTX monorail electrocoating systems feature a unique tank design that enhances paint circulation and helps prevent clumping, settling or foaming.

TTX power and free conveyor system will fully automate your manufacturing process and efficiently transfer product between manufacturing, finishing and final assembly/shipping areas. It can allow the load/unload to be stationary while the rest of the products remain in motion and can also direct carriers onto different conveyor lines, making power and free conveyors extremely versatile.

Every Therma-Tron-X conveyor system is unique. TTX conveyors, featuring PLC's, automate any finishing operation and seamlessly link existing plant conveyors to assembly, shipping and manufacturing departments. Conveyors significantly reduce the amount of manpower needed to move parts around a plant.

Therma-Tron-X programmable hoists are custom designed and built to serve a wide variety of industrial finishing processes and can be integrated with multiple styles of conveyor systems. They are designed to handle the heaviest workloads and are fabricated, programmed and tested before shipment. PLCs monitor hoist systems and make sure all operations meet your exact specifications.

Many of our clients are now opting for combination coating systems that offer the outstanding corrosion resistance and coverage provided by E-coats, as well as the multi-color flexibility implicit in powder or liquid coating technologies.

TTX Environmental has been working since 1985 to develop wastewater treatment systems that minimize operational costs and environmental impact. We use wastewater minimization technologies and process bath reclamation to help bring your plant into compliance with federal, state and local discharge standards. We specialize in chemical precipitation, metal sorption, ion exchange and membrane separation.

# Inspiration ➔ Application

# TTX

## THERMA-TRON-X, INC.

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www.ttxinc.com 920-743-6568 sales@ttxinc.com

Continued from page 1

“This year we have partnered with Bombardier to redesign the Cam-Am Spyder with new electroplated and other advanced finishes,” says Kuntz. “Last year the project focused on heavy trucks and the year before it was Harley-Davidson motorcycles.”

Kuntz says that new advances in automated plating control technologies (ie. PH adjusters, auto-titrators) is helping to make plating more efficient, predictable and in reducing rejects.

KEI is a leader in high-volume auxiliary-assist plating.

“Components are getting more complex in geometry and plating specifications for exterior components are getting more stringent, which makes auxiliary-anode assist plating a necessity,” explains Kuntz.



Photo courtesy of Kuntz Electroplating Inc. (KEI).

## HEALTH RISK ASSESSMENT OF NICKEL

According to the NASE, “The U.S. Environmental Protection Agency has delayed its schedule for revising its human health risk assessment for soluble nickel compounds. The agency’s action appears partially in response to a National Academy of

Science report pointing out flaws in EPA’s risk assessment process and urging reforms by the agency. The nickel assessment will now not be finalized until 2013, but EPA will likely issue a scientific literature review in 2012.

In light of the agency’s action on nickel

salts and emerging concerns over nickel compounds being listed under the European Union REACH chemicals framework, a new U.S. and North American nickel users group was just kicked off in December. NASE and over 20 other U.S. trade associations and global companies partici-

pated in the meeting, held at the American Chemistry Council’s headquarters in Washington, DC. In the coming year, the group will focus on ensuring EPA relies on sound science to inform its decisions on nickel, and will educate Congress on the importance of the nickel value chain and finishing’s critical role in the manufacturing of hundreds of thousands of products.”

In North America, a large part of the operating costs in the nickel plating and electroforming industry relate to compliance with environmental, health and safety regulations. The industry has made great strides in reducing the amount of nickel-bearing wastes that it generates by implementing technologically sophisticated recycling, recovery and reuse programs.

Kuntz says, “The metal finishing sector (through the Canadian Association for Surface Finishing CASF) is one of five sectors currently interested in developing technical standards for their respective industries/equipment. This is in response to new air quality legislation that will impact the surface finishing industry and electroplaters. MOE staff will be managing the development of multiple technical standards over the course of the next couple of years.”

## CORPORATE PROFILE

## DeFelsko Corporation – The Measure of Quality

DeFelsko, a leading U.S. manufacturer of coating thickness gages and inspection instruments, offers a variety of instruments designed specifically to meet the coating industry’s requirements.

The NEW PosiTector 6000 coating thickness gage is now smarter, faster and more powerful than ever before. Both Standard and Advanced models feature built-in memory, onscreen statistics, USB mass storage, and new Fast mode. Advanced models also include hi contrast reversible colour LCD, Scan mode to store continuous readings, onscreen help, real time graphing, and more.

The NEW PosiTector DPM Dew Point Meter measures and records climatic conditions including: relative humidity, air temperature, surface temperature, dew point temperature and the difference between surface and dew point temperatures. It is available with either a Built-in or Magnetic Separate probe, and 2 models to choose from – Standard and Advanced. All models include memory, Auto Log, statistics, USB port and Smart Trend™ indicators to help you identify rising, falling or stable readings. Download and transfer options include USB, Bluetooth and PosiTector.net cloud-based memory storage. No software is required.

The NEW PosiTector SPG Surface Profile Gage measures and records peak to valley surface profile height in accordance with ASTM D4417-B and others. Available with either Standard or Advanced features, the PosiTector SPG has a fast measurement rate of over 50 readings per minute – ideal for quickly and accurately measuring surface profile over large surface areas.

The new PosiTector body universally accepts all PosiTector SPG, 6000 and DPM probes easily converting from a surface profile gage to a coating thickness gage or dew point meter.

DeFelsko also offers quality inspection instruments including the PosiTest Adhesion Tester and PosiTector Ultrasonic Thickness Gage.

Call DeFelsko at (800) 448-3835 or visit our website at [www.defelsko.com](http://www.defelsko.com) to get assistance selecting the optimal instrument for your application. For more information:

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- **New!** PosiTector body universally accepts all PosiTector DPM, SPG and 6000 probes easily converting from a dew point meter to a surface profile gage or coating thickness gage

Advanced model shown with built-in probe

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## NICKEL PLATING AND MONEY

To help with supply and demand Canada is doing its part by taking changing the composition of its \$1 and \$2 coins this year from nickel to a steel core. Expected to save taxpayers \$16 million a year, the new Nickel free coins are expected to launch in spring 2012. The current \$1 is made from bronze-plated nickel, while the \$2 has a ring of pure nickel around a copper alloy centre. The new coins will use the same multi-ply plated steel technology used in the penny, nickel, dime and quarter. The change comes as nickel prices have fluctuated by as much as 1,000 per cent in recent years, according to the government, creating both supply and cost issues. The mint produces 30 million of each coin annually, and the government says the elimination of the nickel element will reduce nickel demand by about 539 tonnes a year – just a tiny fraction of Canada's domestic output.

## NICKEL FORECASTS IN THE MARKETPLACE

Nickel has such unique and attractive properties, especially in a decorative way it will always be in demand in plating.

After three consecutive years of declines, global nickel demand grew by

18 per cent in 2010 according to RBC Capital Markets. It forecasts growth of 9.5 per cent in 2012, 10.3 per cent in 2013, and trend growth of approximately 5 per cent thereafter. Supply growth moderated in 2011 as new projects were delayed. But despite ongoing problems, RBC expects new projects to begin to make a significant contribution to supply in 2012. On top of that, and despite declines in the latter part of 2011, nickel pig iron production could be running at much higher rates than currently forecast. RBC estimates supply grew by 6.4 per cent in 2011, and forecast growth of 12.3 per cent in 2012, 9.8 per cent in 2013, 5.1 per cent in 2014, and 4.6 per cent in 2015. As for price, it is expected see fundamental price support in the \$8.50/lb to \$9.00/lb range. In 2012 and 2013, prices should remain within this range to limit production increases and balance the market. RBC forecasts an average price of \$8.25/lb in 2012, \$9.00/lb in 2013, \$10.00/lb in 2014, and \$11.00/lb in 2015. The risks to these forecasts are:

**Economic Growth** - A 1 per cent decrease in forecast 2012 global demand would decrease our forecast growth rate from 9.5 per cent to 8.4 per cent and increase forecast surplus by 17,000 t.

**Investment Demand** - Investment demand remains a key driver of commodity prices, leaving prices vulnerable to increased volatility.

**China** - Slower demand growth in response to government measures to cool economic growth or higher nickel pig iron production could increase forecast surplus in 2012.

**New Capacity** - Delays or difficulties in bringing new projects (many of which rely on new technologies) on stream could result in tighter markets and higher prices than currently forecast.

## ABOUT NICKEL

Nickel, according to the Nickel Institute, is a naturally occurring, lustrous, silvery-white metallic element and the fifth most common element on earth and occurs extensively in the earth's crust. However, most of the nickel is inaccessible in the core of the earth.

Nickel metal's key characteristics are: high melting point, 1453 °C; resistant to corrosion and oxidation; very ductile; alloys readily; magnetic at room temperature; can be deposited by electroplating and has catalytic properties.

Name:	NICKEL
Chemical Symbol:	Ni
Atomic Number:	28
Atomic Weight:	58.71
Melting Point:	1453 °C
Boiling Point:	2730 °C
Density:	8.90 g/cm <sup>3</sup> at 25 °C
Curie Temperature:	253 °C

Reflecting these characteristics, nickel is widely used in over 300,000 products for consumer, industrial, military, transport, aerospace, marine and architectural applications. The biggest use is in alloying - particularly with chromium and other metals to produce stainless and heat-resisting steels. About 65 per cent of the nickel, which is produced is used to manufacture stainless steels. Another 20 per cent is used in other steel and non-ferrous alloys - often for highly specialized industrial, aerospace and military applications. About 9 per cent is used in plating and 6 per cent in other uses, including coins, electronics, and in batteries for portable equipment and hybrid cars. In many of these applications there is no substitute for nickel without reducing performance or increasing cost. ■

## CORPORATE PROFILE

### The Science of Sustainability™

Fielding, is an award winning cleantech company specializing in solvent and refrigerant repurposing, global procurement, logistics and custom processing. Fielding coined the phrase Cradle to Cradle® Care of Chemicals, a phrase that is Fielding's corporate rudder, steering research and revenues to drive sustainability at Fielding and for its customers. The passion and dedication evolved to today's corporate brand, The Science of Sustainability™.

A commitment to positive environmental change through science and innovation, led Fielding to become a founding partner of GreenCentre, a not-for-profit with a

vision to change the world with green chemistry. Through its association with GreenCentre, Fielding co-founded a new company called Switchable Solutions Inc. ("SSI"). SSI is commercializing breakthrough Canadian green chemistry technology to recycle plastics and efficiently extract bitumen from oil sands and tailings ponds. A demonstration plant for this technology will be built at the Fielding site.

Fielding has established a cluster of environmental companies at one location to leverage the value of our existing infrastructure and shared services. One of the companies in the cluster is Drystill Holdings, Inc. with their patented technology to improve the profitability of

## Fielding Chemical Technologies Inc.

ethanol production. Another member in the cluster is Sustainable Path Inc., a consulting company that provides sustainability strategy, design, training and implementation.

### Repurposing

A leader in chemical recycling, Fielding applies the principles of science to produce products to stringent specifications while minimizing the use of natural resources and waste residues. Fielding is also Canada's leading refrigerant recycler and exclusive Canadian distributor of Choice™ R421a Refrigerant, a green drop-in replacement for R22. Equipped with specialized analytical capabilities and a national fleet of collection and distribution cylinders, Fielding is the largest service provider to Refrigerant Management Canada (RMC). Each year millions of litres of spent solvent and refrigerant gases are given new life using the science of repurposing.

### Procurement

Based on an extensive network of qualified suppliers around the globe, Fielding leverages global partners, years of international experience and negotiating strengths to ensure sustainable supply of critical resources for customers. The science of procurement provides competitive new sources, foreign vendor relationship management, guided trade expeditions and more sustainable choices.

### Logistics

Customers and vendors rely on Fielding's commitment to use qualified logistics partners and trained personnel dedicated to minimizing environmental impact, ensuring full regulatory compliance and documentary excellence. Packaged or bulk, in trucks, containers or rail, whether a liquid, solid or gas – the science of logistics delivers sustainable peace of mind.



### Customizing

Strategic R&D, a state-of-the-art laboratory and continuously refined capabilities are focused on sustainable solutions for customers' unique solvent, refrigerant, environmental and corporate objectives. Fielding continually invests in technology, credentials and people. The foundation of the science of customizing was built on five+ decades of results. Its future will evolve from the needs of customers and the passion of its team of scientists, chemists and engineers who strive to Save the Planet ... One Molecule at a Time!

Paul Haskins, appointed President & CEO of Fielding as of January 2012, remarked "Fielding is recognized as an environmental leader and has won numerous awards for its technologies and stewardship. A sustainability culture flourishes at Fielding and is driven up and onwards by the more than 60 employees of Fielding who consider themselves Molecule Managers!"

To learn how Fielding, through The Science of Sustainability™ can help you become a Molecule Manager, connect with Director of Sales & at randys@fieldchem.com or visit www.fieldchem.com.



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## NEW PRODUCTS AND TECHNOLOGIES

### MacDermid Inc. Cleaners

MacDermid has developed a complete line of industrial cleaners.

Metex Elite 510 P is a caustic-free, non-silicated, mild alkaline cleaner for aluminum. At temperatures below 160°F (71°C), it performs as a non-etch cleaner with optimum retention of original surface conditions. Above 170°F (77°C), its action results in faster cleaning accompanied by mild etching.

Metex Elite 520 L is a highly concentrated builder base designed to be used with Tensid 561 in either soak or electrocleaner applications. Its unique blend of builders allows it to be used for steel, copper, brass and zinc diecast applications. Metex Elite 520 L is phosphate-free and contains no chelating agents for ease of waste treatment operations.

Metex Elite 540 P is a highly efficient, alkaline soak cleaner, formulated for use on steel, copper and brass substrates. Metex Elite 540 P offers unmatched cleaning ability from a powdered soak cleaner. The surfactants in Metex Elite 540 P are extremely free rinsing, resulting in minimal drag down of solution to the subsequent baths in the cycle.

[www.macdermid.com](http://www.macdermid.com)

### Troy Introduces Next Generation Wetting & Adhesion Additive

Troy Corporation announces the introduction of Troysol PWA, a unique, next generation wetting and adhesion promoter intended for dry-mix products. Troysol PWA improves adhesion to substrates and enhances pull-off strength. Ideal for cement-based adhesives, EIFS adhesives, mortar, gypsum board, tile adhesives and other dry-mix products. Troysol PWA answers the needs of industry for a high-performance additive designed specifically for high-performance building products. VOC- and CMR-free Troysol PWA is available as a free-flowing powder.

[www.troy.com](http://www.troy.com)

### Binks Introduces The Airless 75 Professional Spray Guns



Binks new Airless 75 airless spray gun is the rugged 7500 PSI industrial spray gun built to survive the roughest working conditions using an operator-friendly stress reducing design.

Made with a forged anodized aluminum body, this latest Binks professional spray gun features a thick-walled stainless steel fluid tube and is compatible with high solids and abrasive industrial materials. The exclusive needle design was developed to keep the spring out of the fluid's path, and the packings



are adjustable for longer life. With almost any coating, from stain to zinc, the Binks Airless 75 is a high production spray gun that delivers a quality finish.

Available in two gun versions, the Binks Airless 75 with external stainless steel fluid tube with the optional heat guard allows use of heated coatings up to 175°F (79°C). On the Binks Airless 75 Direct Connect model the fluid hose attaches directly to the gun, allowing the use of high solids and high viscosity materials.

The Binks Airless 75 has a stress reducing ergonomic handle and a two finger trigger. This combination gives the operator maximum comfort, more control, and better leverage of

the spray gun. The payoff is a more productive finishing operation, less hand fatigue and lower risk of RSI.

[www.binks.com](http://www.binks.com)

### Nordson Quattro Automatic Spray Gun

Nordson Corporation, a recognized leader in liquid dispensing technology, introduces the new Quattro automatic spray gun, incorporating fast cycling, fine atomization and easy maintenance for higher productivity and improved finish quality in airless painting applications.

The stainless steel Nordson Quattro gun can be used for general finishing in either non-circulating or circulating heated airless applications. It features a four-in-one valve design to enhance automatic color changing without having to reposition the spray gun. Up to four different colors can be used in the gun, or three colors and a flushing solvent. Quattro



guns produce fine atomization and a soft, controllable spray to deliver excellent finish quality with minimal overspray. Using Nordson nozzles, the gun can provide improved atomization with a wide range of coating materials, including high solids and other difficult-to-spray coatings for minimal paint waste. An optional Nordson heater is available to reduce and control material viscosity for improved operating performance and efficiency.

[www.nordson.com](http://www.nordson.com)

## CORPORATE PROFILE

## Walther Pilot North America

WALTHER PILOT North America is the North American agent for WALTHER Spritz- und Lackiersysteme GMBH. WALTHER PILOT is well respected for its precision equipment in the spray finishing, adhesive application, and dot marking industries. WALTHER PILOT's high quality tools and complete systems enable our clients to work comfortably and safely, while protecting the environment.



We at WALTHER PILOT North America have been in business since 2002 and represent WALTHER PILOT products in North America. Our distributors (throughout Canada, U.S., and Mexico) and in house staff are dedicated to providing the best customer service available. We not only provide the products to ensure quality spraying, whether it is for adhesive, paint finishing, or dot marking, we also provide advice on what would be the best type of equipment for your application. Our engineer has over 30 years' experience in the finishing/fluid handling business.

WALTHER PILOT's coating equipment is complete with manual and automatic spray guns (conventional pressure, HVLP+ and HVLP), nozzle extensions, pressure tanks, mixing tanks, diaphragm pumps, and piston pumps. With a large selection of spray guns we are able to provide our customers with equipment for small coating areas to large coating areas. Our nozzle extensions are optimal for coating in tight areas and 360° inside a pipe.

WALTHER PILOT marking equipment is currently used for many different applications including:

- Marking weld seams and sheet metal
- Marking engine blocks
- Marking blow holes during glass production
- Cutting and bending lines for cardboard packaging
- Line marking for manufacturing
- Paint marking to aid in assembly
- Paint markings for logistics

In the adhesive industry WALTHER PILOT offers manual and automatic spray guns for solvent based, dispersion, 2-component dispersion and extrusion adhesives. The equipment is matched exactly to the characteristics of the adhesive in order to offer the perfect application technique that boosts process reliability and reduces material consumption.

If you are in the spray finishing business, whether it is paint, adhesive or marking, let the experts at WALTHER PILOT North America help you select the right equipment to meet your requirements.

Give us a call at 1-877-WALTHER (877-925-8437) or e-mail us at [sales@waltherpilotna.com](mailto:sales@waltherpilotna.com) for superior quality equipment and technical support.

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# Inortech Chimie Inc.

## “ au delà de la chimie ”

Plus que des mots, notre devise représente la volonté d'offrir à nos clients et fournisseurs un service unique et inégalé.

Notre personnel de grande expérience tant dans le service à la clientèle, la vente, la réglementation, et le service technique, saura vous appuyer dans vos projets de développement. Notre laboratoire de R&D à la fine pointe de la technologie et constamment tenu à jour par l'ajout de nouvel équipement, comme l'acquisition cette année d'un Weather O Meter de dernière génération, sait vous donner un appui de taille pour l'intégration de nouvelles technologies dans vos lignes de produits.

La mission d'Inortech a toujours été de repousser les limites des possibilités actuelles

offertes, pour offrir à nos clients et fournisseurs les solutions les plus innovantes et avant-gardistes du moment.

L'ensemble de notre personnel assiste à de nombreuses conférences, formations, et congrès, afin de se perfectionner et de confirmer leur dominance technique et leurs qualités humaines, tant reconnues par le marché.

Depuis maintenant 21 ans, Inortech n'a de cesse de donner à ses clients des occasions uniques de développement par l'appui technique incomparable qu'elle seule est capable de leur offrir. Pour nos fournisseurs, il s'agit d'une assurance de visibilité et de mise en marché hors pair de leur gamme de produit.

Pro-actifs dans l'industrie des encres, adhésifs, plastiques, et revêtements, attentifs et attentionnés aux problématiques modernes, la sélection de nos fournisseurs représente l'élite technologique disponible, et

renforce la solidité ainsi que la longévité des liens qui unit Inortech à ses partenaires.

Ce lien nous rend extrêmement fier et nous pousse tous les jours à donner le meilleur de nous-même.

Afin d'être au plus près de notre clientèle, nous avons établi un réseau de stockage par l'utilisation d'entrepôts publics à travers le Canada, là où les besoins sont établis. Ce faisant, nous offrons à notre clientèle la flexibilité et la proximité nécessaires à une époque où les délais sont un facteur clé de réussite tant pour nos clients que fournisseurs.

Maillon indispensable de réussite Inortech s'est toujours démarqué par une connaissance parfaite des besoins de ses marchés, de l'évolution technologique et commerciale actuelle, et s'adapte en permanence aux modifications incessantes de notre industrie.

Prête à relever tous les défis auxquels elle a

été, est et sera confrontée, Inortech est l'atout incontournable de votre réussite, grâce à son modèle unique et avant-gardiste d'entreprise.

Ensemble, voyons ...



## “beyond chemistry”

More than words, this motto represents Inortech's "raison d'être", always striving to give a unique and unparalleled service to our customers and suppliers.

The great experience of Inortech's personnel at the customer service, sales, regulatory and technical level will, without a doubt, enable you to successfully establish new technologies. Our laboratory is always maintained at the cutting edge of technology and we constantly make sure that the latest equipment is available. As an example, this year we purchased the latest generation of Weather-O-Meter. In doing so, we ensure outstanding support to our customers and suppliers.

Inortech's mission is always to push to the limit of the technologies offered by our suppliers and others for innovative and "avant garde" solutions.

In order to maintain our technology expertise and the excellent interpersonal skills so well recognized by the market we serve, all Inortech's personnel, without exception, are invited to go to conferences, congresses and to follow continuous formations.

For the last 21 years, Inortech has strived to help customers successfully secure new opportunities supported by the unparalleled technical team. Also, for our suppliers, we assure an outstanding visibility and an excellent market penetration.

Being proactive in the market we serve – coating, inks, plastic and adhesives – and being especially attentive to our customers' demands and problems, we always make sure that the selected supplier is at the cutting edge of their technology. This approach strengthens and guarantees a long and fruitful

partnership with our customers and suppliers.

In this day and age, delivery on short notice and on time is a paramount asset for our customers and suppliers. Our Canadian public warehousing network helps us to make sure that our customers have the material when needed and on time.

Inortech's success has always been its outstanding capacity to understand new technologies and to be able to explain them to our customers. This forces Inortech's staff to always adapt and be on top of the ever-changing market conditions.

Because of its unique and "avant garde" business model, Inortech can be part of your team and pivotal to your success.

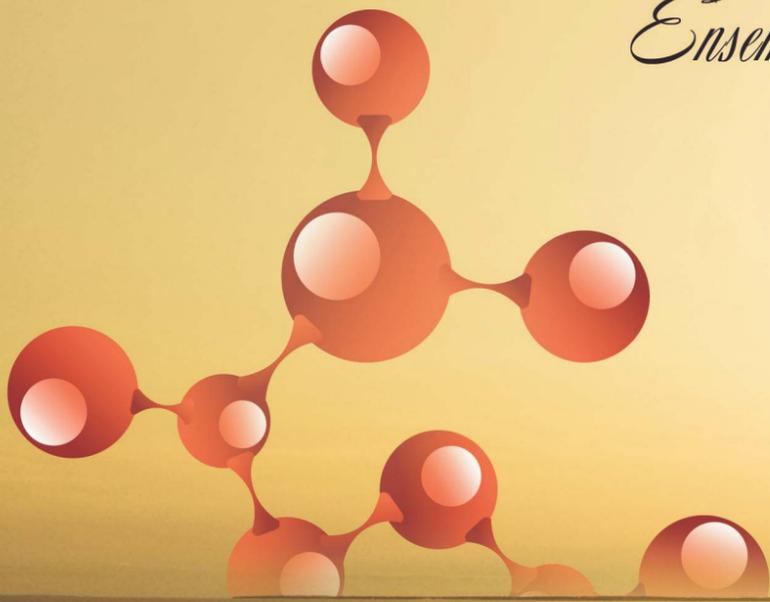
Together, let's go ...

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*Together we go beyond chemistry*

*Ensemble nous allons au-delà de la chimie*



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