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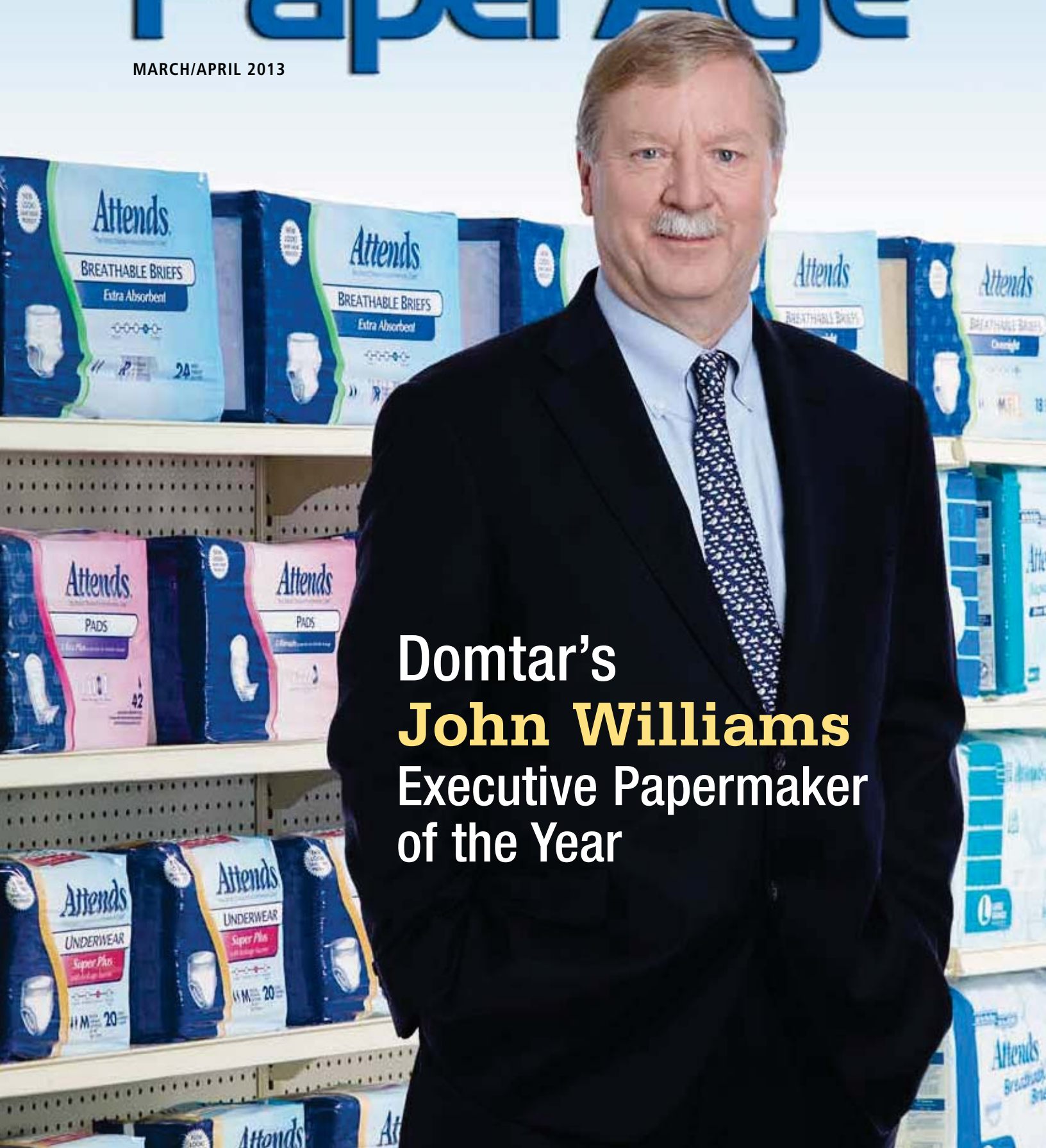
MARCH/APRIL 2013



Domtar's **John Williams** Executive Papermaker of the Year

From increasing fiber yield to maximizing energy efficiency, we make the best solutions possible.

For more than 100 years, papermakers have relied on Kadant to optimize paper mill performance. And today, our commitment to making the best solution possible is just as strong. We continue to invest in people, technologies, and product innovations to help our customers maximize product quality, productivity and operating efficiencies.

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Visit us online at www.kadant.com and see what the paper people at Kadant are doing today to solve the papermaking challenges of tomorrow.

KĀDANT
AN ACCENT ON INNOVATION

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Paper, It's for…

By John O'Brien, Managing Editor
jobrien@paperage.com

Most everyone through the years has seen some of the more prominent industry promotional campaigns for commodities such as beef, pork, milk, and eggs. These campaigns have proven to be very successful and they're the result of what are known as "check-off" programs.

What exactly is a check-off, you ask? From the Paper Check-off website (www.paper-checkoff.com), "Authorized by federal legislation, a Check-off is designed to maintain and expand markets for an industry's products. Check-offs are governed by an Order that sets the parameters of the program and are run by an industry nominated board of directors appointed by the Secretary of Agriculture. While program funds may not be used for lobbying or advocacy, they are available for informational, educational, and promotional activities in support of an industry's products."

A number of industries in the U.S. have initiated and maintained check-off programs, which have renewed consumer interest and increased demand for their respective products. The programs are the result of collective efforts that deliver a message as a single voice.

Following are a few mini-stories of established check-off programs:

The Incredible Edible Egg. The American Egg Board (AEB) check-off program was launched in 1977 and with it began cholesterol research to dispel "advice" doctors and health care professionals were telling their patients which was to restrict and or stop eating eggs because of the high cholesterol in each egg. But, after only one year of promotions about the nutritional qualities of eggs, egg consumption per person jumped by 7 eggs. Over the next twenty years and with the help of a sustained check-off program, egg consumption per person reached 10 eggs. Even the American Heart Association got onboard and approved an egg a day to be good for you.

The Pork. The Other White Meat. In 1986 a check-off program (the Pork Act) was initiated and in 1987, a national promotion campaign "The Pork. The Other White Meat" was introduced to reposition pork as a lean protein. By 1995, through its check-off-funded promotions and market development, the U.S. became a net pork exporter for the first time in more than 40 years. In 2011, more than 20% of U.S. pork production was exported. A study of the economic value of Pork Check-off programs finds that producers gain an additional $13.80 for each additional $1 of check-off program expenditures.

"**The fabric of our lives,"** is the long-standing slogan of the National Cotton Council and plays a leading role in the cotton industry's check-off program. From The Cotton Board's website, "By the mid-1960s, cotton had lost many of its traditional markets to the new "easy-care" synthetic fibers. Realizing this, U.S. Upland cotton producers conceived a self-help research and promotion program. In a referendum, producers voted to set up a per-bale assessment system to fund the program, built in safeguards to protect their investments and, with the passage of the Cotton Research & Promotion Act of 1966, joined together to begin battling synthetic competitors and re-establishing markets for cotton. Today, due to the success of the Program, cotton is the best-selling fiber in the U.S. and one of the best-selling fibers in the world."

Got paper? Not for long unless the industry comes together and does something about it, and that's where the recently introduced Paper Check-off program could make a world of difference in consumers' perception of the stuff all of you papermakers would like to keep producing by the tons.

Paper – It's for… *everyone*. ■

PaperAge

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If you had to choose a kaolin supplier based on one quality, which would you choose?

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- ❑ SERVICE
- ❑ STABILITY
- ❑ LONGEVITY
- ❑ GLOBAL REACH
- ❑ PRODUCT DEVELOPMENT

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NORTH AMERICA

Boise to Install New 110'' Corrugator at Waco, Texas Facility

Boise Inc. recently announced key investments in the converting operations of its Packaging business. The largest capital improvement is the installation of a new 110" corrugator at the company's Central Texas Corrugated (CTC) sheet feeder facility in Waco, Texas, which is expected to start up in third quarter 2013.

"We're excited about this new corrugator and several other investment projects, which are aimed at reducing operating costs, improving quality, and increasing production capabilities," said Dave Kunz, vice president of Packaging. "Once installed, the new CTC corrugator will replace two existing corrugators, which will improve our operating efficiency and lower our costs. We expect the new corrugator will add 180,000 msf of low-cost production capacity, while simultaneously allowing us to reduce operating costs."

The company has also completed a recent rebuild of its corrugator at its converting facility in Salt Lake City, Utah. This rebuild has substantially increased the speed and throughput of the machine, reduced waste, and improved product quality.

Additionally, the company has installed a new high-speed flexo machine at its converting facility in Wallula, Washington. This new machine replaces two older converting machines and improves our efficiency through reduced set up time, along with lower operating costs.

Alexander Toeldte, President and CEO of Boise Inc., said, "These investments are an important part of our plan to grow our Packaging business. We plan to continue making these types of investments in our Packaging system to meet changing customer needs, grow with our customers, and ensure that our facilities are safe, efficient, and cost competitive."

Neenah Paper Acquires Premium Business Paper Brands from Southworth

Feb. 1, 2013 - Neenah Paper said that it has completed the purchase of certain premium business paper brands from the Southworth Company.

The purchase was financed through the company's existing credit facility and cash on hand, but other terms of the deal were not disclosed.

Annual sales from the acquired brands are approximately $20 million, Neenah said.

"As the market leader in premium papers, this is a natural extension of our Fine Paper business," said Julie Schertell, President - Fine Paper. "The addition of Southworth's well-regarded brands allows us to expand our presence in the retail channel and fits with our strategy to grow in profitable niches that value image and performance."

In January of 2012, Neenah purchased the branded premium paper portion of Wausau's Fine Paper division.

Catalyst Paper to Sell Its 50% Stake in Powell River Energy for $33 Million

Catalyst Paper has agreed, subject to court approval, to sell its approximately 50% interest in Powell River Energy Inc. and Powell River Energy Limited Partnership to Powell River Energy Trust, a Brookfield Renewable Energy affiliate for $33 million. Powell River Energy Trust currently holds the other 50% stake in the Powell River Energy joint venture originally established in 2001.

"Sale of this energy asset to our joint venture partner enables a smooth operational transition, maintains reliable electricity supply for our Powell River paper mill under a power purchase agreement and ensures we meet the terms of the plan of arrangement in a timely way," said Catalyst's President and CEO, Kevin J. Clarke.

All electricity generated by Powell River Energy will be sold to Catalyst under a power purchase agreement which expires in 2016 with possible extension to 2021 at Catalyst's discretion.

The sale is expected to complete in the first quarter of 2013 and is subject to various closing conditions.

EUROPE

Cham Paper Makes CCK Technology Available to Brigl & Bergmeister

The Cham Paper Group has entered into a cooperative venture with Brigl & Bergmeister ('B&B'), of Niklasdorf, Austria, a manufacturer of single-sided coated speciality papers.

B&B is assuming the production and marketing of silicone-base papers (CCK or clay-coated kraft papers) for release liners at its production site in Niklasdorf. The Cham Paper Group will be contributing the specific technological expertise required to this end.

The first products manufactured at this site will be available in the second half of 2013, Cham said.

The Cham Paper Group discontinued manufacturing the aforementioned specialty papers in the course of transforming its production capacity in mid-2012. Cham produced inventory stocks for its customers in order to secure deliveries established under contract through 2013.

Cham and B&B have agreed to maintain confidentiality pertaining to the details of this cooperative venture.

Congratulations John D. Williams and Domtar – Ensuring sustainability and viability of paper for generations to come.

The world needs paper, and Domtar is committed to ensuring its viability and sustainability. Making paper that touches our lives every day, Domtar inspires our industry with innovative ideas that improve process efficiency and protect our natural resources. So it's only natural that Domtar's CEO, John D. Williams, has been named the industry Papermaker of the Year.

Voith is proud to be a supply partner to Domtar, and we congratulate Mr. Williams and the entire company on this well-deserved recognition.

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VOITH

Engineered Reliability

Holmen Paper to Invest SEK 200 Million in Energy Project at Hallsta Mill

Holmen Paper plans to invest SEK 200 million (approx. USD 31 million) in restructuring the energy supply at its Hallsta Paper Mill in Sweden. This is the single largest investment in the mill since the PM 11 was built in 2002, the company said.

The planned measures strengthen the mill's competitiveness and form part of the transition to a two-machine mill. In October 2012, Holmen announced that it would close down one of the mill's three paper machines, PM 3, during the second half of 2013. The paper machine manufactures 140,000 tonnes of SC paper annually "for a market with excessive overcapacity," the company explained.

"We're providing Hallsta Paper Mill with completely new opportunities for the future," said Henrik Sjolund, head of Holmen Paper. "By improving heat recovery from paper machines and pulp manufacture, we'll be able to run the mill in a more energy-efficient manner."

The restructuring also involves closing two old solid fuel boilers, which will be possible when PM 3 is closed during the second half of 2013, the company noted.

Holmen expects to complete the project by the summer of 2014.

The Hallsta Mill is an integrated facility producing thermo-mechanical (TMP) and groundwood pulp and MF-Magazine, SC-paper and book paper. The mill has an annual capacity of 670,000 tonnes.

Catalyst Paper Completes Sale of Snowflake Mill in Arizona

Catalyst Paper has completed the U.S. Court approved sale of the Snowflake assets (Arizona) and shares of Apache Railway.

The Hackman Capital-led buyer group purchased the assets of the closed Snowflake facility and the shares of Apache Railway for US$13,460,000 and other non-monetary consideration.

According to Catalyst, the deal received local support from the Town of Snowflake and other interests, based on the buying group's intention to continue to operate the Apache Railway as a going concern.

"The successful completion of this transaction will assist Catalyst in reducing its interest obligations and improve overall liquidity," said Catalyst's President and CEO Kevin J. Clarke. "With challenging markets and currency impacts to contend with, we are maintaining tight control of spending on all fronts and making the sale of all remaining non-core assets a priority."

In a written statement, Catalyst said, "Aided by the sale of the Snowflake assets and the sale of inventories and realization of accounts receivable associated with the Snowflake closure, Catalyst has been able to repay substantially all of its cash drawings under its ABL facility leaving only customary letters of credit and a minimal cash drawing outstanding under the facility at this point in time. Drawings under the ABL facility fluctuate with Catalyst's working capital needs from time to time."

The Snowflake Mill produced 100% recycled newsprint and specialties papers on two paper machines.

Case Paper Announces Free 'Paper Pro' App

Case Paper announced that it is offering a free app that provides quick answers to everyday paper sourcing questions — Paper Pro.

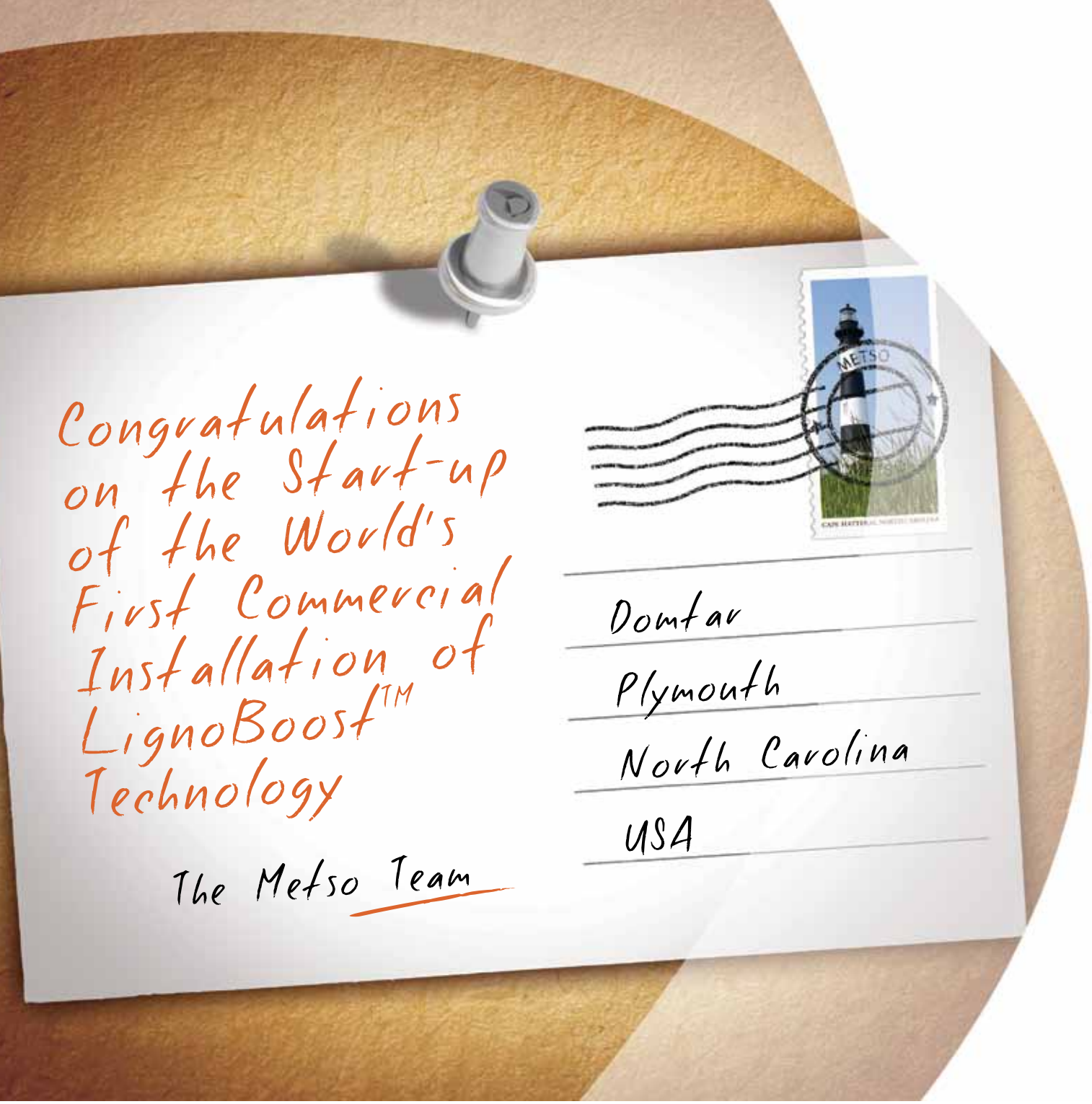
Paper Pro is a handy, everyday tool for printers, suppliers, and packaging professionals that need to spec orders, price out options, or calculate quantities or weights. Only a few finger taps separate you from the information you need when you're on the front lines of a printing or packaging project.

"We made all the Paper Pro calculations truly dynamic, so there are multiple ways to use the app," says Simon Schaffer, Chief Marketing Officer at Case Paper. "For instance, you can use the Roll Weight calculator straightforward to determine the roll weight of one of 11 different papers from their Roll Width, Core Diameter, and Roll Diameter. Or you can use it in reverse to calculate the Roll Width by inputting the weight and diameter measurements you have.

"With Paper Pro, you can even look at the formula for each calculator by hitting the "info" button. You can also copy the complete calculation results for later use, or email the results to a client or customer right from the app," Schaffer explained. "And if you're switching between apps and don't shut down the app completely, Paper Pro holds the results of the last calculation you made in each calculator, just in case."

Paper Pro is free to install, is ad-free, and includes five easy-to-use tabs. For example, the Paper Calculators tab has eight options in three categories: Sheet Calculators, Roll Calculators, and Price Calculators; the Converters tab provides quick and easy conversions of common denominations of weights, lengths, and areas used in print production and procurement, as well as a Mil (pt.) vs. Micron conversion calculator; and the Tables tab provides 14 tables, slide-rule style, for easy paper measurement equivalency comparisons.

The purpose of the Paper Pro app is to provide quick answers to everyday paper sourcing questions with the mobile tools of today — and minimal finger taps. For further information about the Paper Pro app, please visit Case Paper's website at www.casepaper.com.



Successful cooperation - world's first

Domtar successfully started-up the world's first commercial installation of LignoBoost technology. The equipment is integrated with the Plymouth North Carolina pulp mill. The LignoBoost process separates and collects lignin from pulping liquor. This is an important breakthrough for Metso's patented LignoBoost technology and provides the Plymouth NC mill with numerous benefits.

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Expect results

Sodra Seeks Divestment of Tofte Pulp Mill in Norway

Sodra announced that it will divest its Tofte chemical pulp mill in Norway.

"This decision has been made as a result of long-standing difficulties with unsatisfactory profitability at the mill," the company said in a written statement.

"A process has begun to sell the mill. Sodra Cell's management has been given the task of creating a divestment plan for Sodra's ownership of the mill."

Gunilla Saltin, Acting CEO of Sodra and President of Sodra Cell, stated, "We have been attempting for some time now to make Sodra Cell Tofte profitable. The commitment and expertise of the staff have kept quality and productivity at a high level, and they have fought valiantly to keep production costs low. Despite everything we've done, we are now forced to conclude that we have failed to reverse the trend."

Sodra said that its goal is to end its involvement in the mill during the second quarter of this year.

Sodra Cell Tofte Mill, in Tofte, Norway, was purchased by Sodra in 2000. Its timber consumption is approximately 2 million m3 per year. Production capacity amounts to 400,000 tonnes per year of chemical paper pulp. The mill employs 300 people.

Stora Enso to Permanently Shut Down Two Newsprint Machines in Sweden

Stora Enso announced plans to restructure its operations through the permanent shutdown of two newspaper machines in Sweden. The company also plans efficiency improvements in the Printing and Reading customer service and the Building and Living Business Area.

The profitability improvement measures are expected to reduce annual costs by EUR 54 million and reduce the number of employees by approximately 600 altogether.

In the Printing and Reading segment, Stora Enso will permanently shut down PM 2 at its Hylte Mill in Sweden with annual capacity 205 000 tonnes of newsprint, and PM 11 at the Kvarnsveden Mill in Sweden with annual capacity 270 000 tonnes of newsprint.

The machine closures are scheduled for the second quarter of 2013, and represent 3.4% of European newsprint capacity.

The plans to shut down capacity are due to continuing structural weakening of newsprint demand in Europe, the company said.

In addition, Stora Enso plans to create a common platform for all its Printing and Reading sales desk, order handling and logistic services in Europe to improve customer service. "These processes currently handled at seven customer service centers, mills and logistic service centers will be centralized into five customer service centers located in Finland, Sweden, Germany, Belgium and the UK, the company said in statement.

Stora Enso will also establish a separate Logistics Service Centre for overseas business in Gothenburg, Sweden to serve all its business areas.

CEPI Member Countries' Paper Production Down 1.7% in 2012

CEPI (Confederation of European Paper Industries) said that preliminary indications are that paper and board production by CEPI member countries fell by in the region of 1.7% in 2012.

CEPI countries in 2012 are: Austria, Belgium, Czech Republic, Finland, France Germany, Hungary, Italy, Norway, Poland, Portugal, Romania, Slovak Republic, Slovenia, Spain, Sweden, The Netherlands, United Kingdom. CEPI totals no longer include data for Switzerland.

It is estimated that CEPI member countries produced around 92 million tonnes of paper and board in 2012, resulting from some adjustments in production capacities with closures amounting to 2 million tonnes and new capacities or upgrading of existing ones accounting for close to 1 million tonne.

It is estimated that the production of pulp (integrated + market) has decreased by up to 1% when compared to the previous year, with total output of approximately 38 million tonnes. It is estimated that output of market pulp increased by about between 4% and 4.5%, while integrated pulp output decreased by 3% in 2012 when compared to 2011.

It is estimated that consumption of paper for recycling by CEPI members fell by between 1% and 1.5%.

Based on the cumulative data up to the end of the third quarter of 2012 it is expected that total paper & board deliveries for the year will have fallen by over 2% when compared to 2011.

It appears that the overall consumption of paper and board in CEPI countries in 2012 decreased by between 4% and 5% when compared to 2011.

To download a PDF copy of the two-page statistical report, visit: www.cepi.org.

Herty Advanced Materials Development Center Celebrates 75th Anniversary

The Herty Advanced Materials Development Center, a world-leader in materials research and product development, will mark its 75th year anniversary in 2013 by celebrating its achievements, milestones and growth.

Through a host of activities, Herty will honor the legacy of Dr. Charles H. Herty, whose pioneering work in process chemistry helped create the modern pulp and paper industry in the Southeastern United States. The Herty Center will recognize its long-standing achievements and its industrial partners; the impact it has had on economic growth; and present its exciting new initiatives.

Established by the State of Georgia in 1938, the Herty Center was created to provide research and development support to the pulp and paper industry. Early work at the Herty Center focused on chemical pulping and the commercialization potential of southern soft woods, and especially southern pine. This work directly enabled the modern pulp and paper industry to develop in Georgia and throughout the Southeast.

Today, the Herty Center specializes in biomass conversion technologies, advanced non-woven materials, fibers, and pulp and paper operations. Herty is a "new product accelerator" for its clients by offering technical, market, manufacturing and development services.

The Herty Center also partners with clients to demonstrate new ideas, develop novel products and de-risk the commercialization of new technologies. Looking ahead, Herty is quickly expanding its scope and capabilities into new markets and industrial products, with a particular focus on "green" processes, biomass and alternative energy solutions.

For more information on the Herty Advanced Materials Development Center, visit: www.herty.com.

EUROPE

Double A Buys Alizay Pulp and Paper Mill from French Government

Thailand pulp and paper producer Double A said that it has acquired the Alizay pulp and paper mill located in northern France from the French government agency, Conceil General l'Eure.

Terms of the deal were not disclosed.

The former owner, Metsa Board, on Jan. 23 sold the Alizay mill to Conceil General l'Eure for EUR 22 million.

"This investment will open opportunities for Double A in Europe," said Thirawit Leetavorn, Senior Executive Vice President for Double A.

"Paper from Alizay will enhance our brand strength and allow Double A to be responsive to our customers' needs," Leetavorn added.

According to Double A, the Alizay mill will use two types of fiber for paper production — a virgin short fiber from the company's KHAN-NA tree plantations in Thailand, and recycled fiber which will be used for the production of Double A's "Evolve" paper brand.

Editor's note: Double A utilizes the "KHAN-NA" or the vacant spaces around and in between Thai farmer's rice fields for planting trees, which creates value from these empty spaces that would otherwise be unused.

AUSTRALIA

Amcor to Close Petrie Recycled Cartonboard Mill in Australia

Amcor in its half-year earnings statement said that it has made the decision to close its Petrie recycled cartonboard mill, located in Queensland, Australia. The mill employs 160 people.

In Amcor's half-year 2012 statement, within its "Australasia and Packaging Distribution" business, "Fibre" segment, the company said, "Earnings for the half were lower due to a reduction in earnings at the recycled cartonboard mill in Petrie, Queensland. Due to several structural changes in the competitive environment the mill is no longer covering its cash costs."

A news report in The Courier-Mail said that Australian Workers Union Queensland branch secretary Ben Swan said workers had no idea that a review of the plant had been underway and were told of job losses yesterday morning.

"We have been advised that at least 160 positions would be made redundant," Swan told The Courier-Mail. "The closure of the mill will begin in September."

Swan said Amcor blamed the decision on the high Australian dollar and international competition.

Asked about union concerns about more job cuts in manufacturing, Swan said a key issue at this week's AWU national conference was "the need to support manufacturing and encouraging businesses to invest and innovate."

The Petrie Mill began operation in 1957. Since that time the mill has undergone numerous grade changes and investments. In 2004, Amcor invested $55 million in a wet end rebuild and in 2005 the mill's annual production capacity was increased to 140,000 tonnes.

The Petri Mill consumes over 120,000 tonnes of waste paper and cardboard annually, which is converted into new cartonboard products.

ENVIRONMENT

Interpol's Illegal Logging and Forest Crimes Operation Results in Nearly 200 Arrests

Interpol's first international operation targeting large-scale illegal logging and forest crimes has resulted in almost 200 arrests as well as in the seizure of millions of dollars' worth of timber and some 150 vehicles across Latin America.

Operation Lead (September 17 - November 17, 2012), undertaken in 12 countries in Central and South America under the auspices of Interpol's Environmental Crime Programme and its Project Leaf, brought together law enforcement agencies to combat forestry crime in Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Paraguay, Peru, and Venezuela.

Under the operation, officials carried out inspections and investigations on transport vehicles, retail premises, and individuals, as well as surveillance and monitoring at ports and various transport centers.

The resulting seizures of wood and related products during the operation are estimated to amount to more than 50,000 m3 of seized wood, equivalent to some 2,000 truckloads of timber. The total value of the seized timber is estimated at around USD 8 million.

Along with the seizures, participating countries reported a total of 194 arrests, with 118 individuals currently under investigation, and several cases of deportation.

One of the key aims of Operation Lead was the development of practical cooperation and communication among national environmental law enforcement agencies, including forest authorities, police, customs, and specialized units as well as with international organizations such as Interpol.

"Operation Lead marks the beginning of Interpol's effort to assist its member countries to combat illegal logging and forestry crime, which affects not only the health, security and quality of life of local forest-dependent communities, but also causes significant costs to governments in terms of lost economic revenue," said David Higgins, Programme Manager of the Environmental Crime Programme at Interpol. "This is an important goal for Project Leaf as a way to counter the illegal timber trade, currently estimated to be worth between USD 30 to 100 billion annually."

"The intelligence gathered during this first phase of Operation Lead will be used as a foundation for more incisive actions against illegal logging to be taken by Interpol, in cooperation with its member countries. Interpol will continue to support countries to establish long term sustainable improvements in law enforcement responses to illegal and unsustainable deforestation," added Davyth Stewart, Interpol Criminal Intelligence Officer and team leader of Project Leaf.

Project Leaf is a consortium initiative led by Interpol, with the United Nations Environment Programme and with the financial support of the Norwegian Agency for Development Cooperation. This Project supports countries to tackle illegal logging and forestry crime which undermine attempts to implement national and international forest protection policies and sustainable forestry practices.

The trans-national nature of illegal logging raises difficulties for law enforcement and regulators, who are often limited in their ability to work outside their own domestic jurisdiction. Project Leaf is assisting law enforcement agencies from different countries in coordinating a global law enforcement response.

INDUSTRY SUPPLIER

Coldwater Now Manufactures Kirwin Doctor Blades in The U.S.

Coldwater announced that has added a doctor blade manufacturing area to its Atlanta, Georgia facility and the introduction of Kirwin doctor blades to the North American market.

Coldwater acquired R&E Kirwin Ltd. - Doctor Blade Manufacturers and Engineers, of Chesterfield, England in May of 2012. The Kirwin business was moved to Coldwater's Swedish facility near Karlstad later in the year. Kirwin has been a prominent supplier of doctor blades in Europe, Africa and Asia for more than thirty years, Coldwater noted.

In a written statement, the company said, "Coldwater in Atlanta and Karlstad can now manufacture Kirwin doctor blades from carbon fiber, epoxy glass, cotton phenolic, polyethylene, bronze, stainless steel and carbon steel for any style of doctor blade or creping blade holder. Both facilities also stock all the necessary clips, rivets, tubes and springs for quick deliveries."

NPTA Honors David McGehee with Its 2013 Stanley O. Styles Award


David McGehee

NPTA announced that David S. McGehee, President of Mac Papers, is the recipient of the 2013 Stanley O. Styles Industry Excellence Award, NPTA's highest honor.

"David McGehee and the Mac Paper family have truly distinguished themselves with their active engagement with customers and suppliers, coupled with equal amounts of integrity and enthusiasm for our business," said NPTA Chairman Don Clampitt of Clampitt Paper Co.

McGehee began his 40-year career in the paper industry working in the warehouse of Mac Papers, during high school. He returned to the family-owned, fine-paper distribution firm in Jacksonville, Fla., after graduating from college in a sales position. McGehee advanced to General Manager of the Montgomery Division in 1979, then Vice President and Regional Manager in 1982.

McGehee currently serves on the board of Two Sides U.S. and has also participated in and chaired merchant advisory boards over the years.

"David has been instrumental in the expansion of Mac Papers and Mac Paper Envelope Converters," said nominator David Milleman of Mac Papers. "He is passionate about our industry and a natural leader."

The Stanley O. Styles Industry Excellence Award presentation will occur at the Paper2013 convention, March 17-19 in Chicago.

Xerium Technologies Wins Cascades' 2012 Sustainable Supplier Award

Cascades announced that it has named Xerium Technologies as the winner of the fourth edition of its Sustainable Supplier Award — a contest that aims to recognize best business practices in sustainable development among its suppliers.

Created by Cascades' Corporate Procurement Department, this award enables Cascades to publicly acknowledge the efforts of its suppliers that have had positive repercussions on its products, processes or manufacturing methods. The projects undertaken were also assessed on their environmental, societal and economic impacts.

According to Cascades, Xerium distinguished itself by providing a file that was exemplary, supported by figures and highlighting the positive environmental and economic repercussions of its project.

Harold Bevis, President and CEO of Xerium, thanked Cascades for this unique recognition. "I see this prize as one of the best incentives for encouraging suppliers like us to engage in a sustainable development approach with its clients. For the coming years, Xerium intends to continue developing paper machine clothing and rolls technology for the purpose of improving the performance of its clients."

PAPER

- *Cascades Tissue Group* has appointed **Jean Jobin** to the position of Chief Operating Officer. Jobin joined Cascades in 1992 and most recently served as Executive Vice-President of Away- from-Home Products in North America. In other moves, **Stephane Rousseau** takes over the position of Executive Vice-President, Away-from-Home Products in North America, and **Eric Ellyson** has been appointed Executive Vice-President, Consumer Products Canada.

- *Fortress Paper Ltd*. has named **Yvon Pelletier** as President of its dissolving pulp business, effective February 25, 2013. He replaces **Peter Vinall**, who has been with the company since 2010. Previously, Pelletier served as Executive Vice President of Tembec and President of its Specialty Cellulose and Chemical Group.

- *Gorham Paper and Tissue* said that **Pam Miller** has joined the company in a newly created Director of Marketing position. Miller brings to the company over 20 years of industry experience working for some of the largest paper manufacturers in North America including the former Champion International, International Paper, MeadWestvaco and Twin Rivers.

Diane O"Connor

- *Mohawk* has named **Diane O'Connor** to the newly created position of Director of Public Relations. O'Connor has nearly 20 years of experience in public relations, marketing and communications. She is a graduate of the State University of New York at Oneonta, and serves on the board of the Public Relations Society of America (PRSA), Capital Region Chapter.

Jim Pinto

- *National Envelope* announced the appointment of **Jim Pinto** to President and Chief Operating Officer. Pinto joined National Envelope in 2012 as Chief Operations Officer.

Paul Spitale

- *The Newark Group* announced the appointment of **Paul Spitale** as Vice President of Sales for Converted Products. Spitale previously held the position of Senior Vice President of Sales with the Sony Corporation.

- *NewPage Holdings Inc.* announced that **Patrick Buchenroth** accepted the position of controller and chief accounting officer for NewPage Holdings Inc. and NewPage Corporation. Buchenroth served as senior vice president of finance at ACCO Brands Corp., following the company's acquisition of the Consumer and Office Products Division of MeadWestvaco.

Steven Voorhees

- *RockTenn* has elected **Steven Voorhees** as President and Chief Operating Officer, with oversight responsibility for the company's operating businesses, including Corrugated Packaging, Consumer Packaging and Recycling. Voorhees joined RockTenn as Executive Vice President and CFO in 2000 and added the responsibilities of Chief Administrative Officer in 2008.

- *Tembec* has appointed **Christian Ribeyrolle** as Executive Vice President, Specialty Cellulose, following the departure on Feb. 22 of **Yvon Pelletier**, Executive Vice President, Specialty Cellulose and Chemical Group. Ribeyrolle, who holds a chemical engineering degree from l'Ecole Nationale Superieure de Chimie de Clermont-Ferrand in France, has been with Tembec for ten years.

SUPPLIER

- *Coldwater* announced that **Bill Frawley** has joined the company as the U.S. Product Manager for its Kirwin line. Frawley has many years of experience in doctor blade applications.

INDUSTRY ASSOCIATION

- *The American Forest & Paper Association* (AF&PA) has elected Graphic Packaging President and CEO **David Scheible** as the new AF&PA board chairman. Scheible has served as Graphic Packaging's president and CEO since 2007. Since being elected to AF&PA's board of directors, he has served in various leadership roles, including as chairman of CEO Task Force on Biomass and the Recycled Paperboard sector.

  Also elected to officer positions by the AF&PA Board are: First Vice Chairman – **John Williams**, president and CEO of Domtar and Second Vice Chairman – **Mark Gardner,** president and CEO of Sappi Fine Paper North America. **Alexander Toeldte**, president and CEO of Boise Inc., will serve as the Immediate Past Chairman.

MARCH 17-19, 2013
Paper2013
AF&PA and NPTA
Fairmont Hotel
Chicago, Illinois, United States
Website: www.paper2013.com

MARCH 18-21, 2013
Tissue World Conference & Exhibition
UBM Asia Trade Fairs
Fira Barcelona
Barcelona, Spain
Website: www.tissueworld.com

APRIL 3-5, 2013
2013 Outlook & Strategies Conference
Paperboard Packaging Council
Gaylord Opryland Hotel
Nashville, Tennessee, United States
Website: www.ppcnet.org

APRIL 22-24, 2013
European Pulp and Paper Outlook Conference
RISI
Vienna Marriott Hotel
Vienna, Austria
Website: www.risiinfo.com/events/euro_conf

APRIL 27-MAY 1, 2013
PaperCon 2013
TAPPI
Hyatt Regency Atlanta
Atlanta, Georgia, United States
Website: www.papercon.org

MAY 5-8, 2013
International Pulp Week
Pulp and Paper Products Council (PPPC)
Four Seasons Hotel Vancouver
Vancouver, British Columbia, Canada
Website: www.internationalpulpweek.com

MAY 9, 2013
26th Annual Global Forest & Paper Industry Conference
PwC
Sheraton Wall Centre
Vancouver, British Columbia, Canada
Website: www.pwc.com/ca/forestconf

JUNE 9-12, 2013
70th Annual Safety and Health Conference
Pulp & Paper Safety Association
Williamsburg Lodge
Williamsburg, Virginia, United States
Website: www.ppsa.org

June 23-27, 2013
59th Annual Pulp and Paper Industry Conference
IEEE
The OMNI Hotel
Charlotte, North Carolina, United States
Website: www.ieee.org

SEPTEMBER 9-12, 2013
25th Pulp and Paper Reliability and Maintenance Conference
IDCON
Durham Convention Center
Durham, North Carolina, United States
Website: www.idcon.com

SEPTEMBER 23-25, 2013
2013 China International Paper Technology Exhibition and Conference
China National Pulp and Paper Research Institute
National Agriculture Exhibition Center
Beijing, China
Website: www.chinapaperexhibition.com

Supply/Product Balancing Act Steadies Shrinking Uncoated Freesheet Market

Uncoated freesheet producers are profitable and the market has remained in balance despite a steady, ongoing 3% – 4% annual loss in U.S. demand due to a creative mix of grade shifts, capacity withdrawals and higher exports. Pricing has also been remarkably steady although prices slipped some in late 2012. The outlook for 2013 is for these trends to continue.

By Harold M. Cody

Over the last couple of years the U.S. market for uncoated freesheet (UFS) papers has settled into a predictable pattern that is producing solid if unspectacular financial results and steady income for the major producers. Margins have risen a bit over the last couple of years although they narrowed in the latter part of 2012 due to price slippage and rising costs for fiber and energy. These should seem like odd statements to characterize a business where demand for the key products in question continues to inexorably shrink in the world's biggest market for the product.

One result of the decline in domestic demand has been a surge in U.S. exports, which reached a record one million tons in 2012 — a 9% increase.

Nevertheless, the positive performance in the face of some major headwind is real and the result of masterful management by producers of a complex range of issues including capacity, shifts to more profitable specialty grades, efficiency improvements and cost cutting. The job of managing all this has a close resemblance to a game of cards. A hand is dealt, you consider what cards might work best, you discard the ones you don't want and exchange them for a new set. For example, if demand is dropping for one grade you simply shift a mill or machine to a new grade and move on. Sometimes the cards dealt require a machine or mill to be shutdown in order to balance supply and demand because it simply isn't feasible to shift to another grade or market.

In reviewing the last 12 months, not much has changed in the fundamentals of the business since my column back in March of 2012. As expected, the decline in demand continued last year as North American uncoated freesheet demand was down 4.1% through November at 8.9 million tons according to Pulp and Paper Products Council data. This continues the steady decline in demand that has been going on for several years and it's expected to continue into this year and beyond.

The drop in demand in North America is averaging about 3%-4% per year, or roughly 300,000 tpy. Shipments, at 8.37 million tons, are off 4.7%. The year to date operating rate through November was 90%. Total North American printing and writing paper demand over the same period was down 6.5% to 20.8 million short tons, as demand for uncoated mechanical grades and coated freesheet are down even more, 16% and 4.7%, respectively.

U.S. production over the same eleven-month period was off 2.8% at 8.3 million short tons. December data was even worse, as U.S. mills produced only 694,000 tons of uncoated freesheet production, off 6.8% vs. the prior year, bringing the total for the year to 9.01 million tons, a 3.2% decrease vs. 2011.

Demand Continues to Slide

Total U.S. printing and writing paper demand fell 6.3% last year to 20.6 million tons and shipments declined by 7%. Demand in the biggest segment, uncoated freesheet, plummeted 4.7% compared to 2011 to 8.8 million tons. Uncoated freesheet shipments were 8.2 million short tons, a 5.2% decline from the prior year level.

One result of the decline in domestic demand has been a surge in U.S. exports, which reached a record one million tons in 2012 — a 9% increase. This is a big increase over levels

that only a few years ago were half that. The biggest increases were in exports to Mexico and South America, which accounted for 450,000 tons or 45% of the total but exports also rose to Europe (up 6% to 200,000 tons).

The drop in demand, and in turn U.S. mill shipments, continues to be wide spread across every grade segment except one, according to AF&PA. In the big bond and writing category, which includes cut-size papers for office uses such as copiers and printers and accounts for 43% of shipments, shipments were down 3.7% vs. 2011. Offset grades, the second largest category accounting for 21% of the total, saw a 4.4% decline. Bond and offset shipments totaled 5.8 million tons. Declines in the range of 6% were posted for envelope and form bond grades, while carbonless and tablet grade shipments plummeted 9%. Total U.S. uncoated freesheet shipments for all of 2012 were off 3.2% at 9.0 million tons. By end use, office reprographics were down just 2% (3.7 million tons), but shipments to commercial printing were off by 8.4% (at 2 million tons) and forms shipments fell 10%. Office repro and commercial printing account for about two-thirds of total shipments.

The only grade showing an improvement was the "other" category, which includes a range of specialty products such as industrial papers and thermal base papers. 2012 shipments of this grade were just short of 900,000 tons, a 16% increase over 2011 levels.

As mentioned in detail in my last column, a wide range of factors including sluggish white collar employment, electronic substitution effects due to rising use of smart phones and tablets, shifts in advertising and weak economic growth are the main culprits behind shrinking demand. Looking globally, demand is also dropping in Europe, but it's increasing in areas such as China and South America.

One key indicator of fine paper use for envelope and offset printing grades is USPS postal volume. Recent data clearly demonstrates how factors have combined to depress mail volumes. For the fiscal year ending in September 2012, first class mail volume was down 5.6% in pieces and 6.0% in weight. First class volume fell over 4 million pieces. Standard mail volume, which includes direct mail and comprises about 50% of volume by weight, was down 7.3% by weight and 4.7% in pieces. In the fourth quarter, first class volume was down 5.9% and 5.2%, by pieces and weight respectively, and standard mail volumes were off by even more, down 8.7% by weight and 5.3% by pieces.

Capacity Adjustments

As noted above, producers have moved carefully in order to match the decline in demand, and considerable capacity has been shut down or converted to other grades. About 800,000 tons of uncoated freesheet capacity was shut down in the last two years, but about 200,000 tons restarted. Withdrawals include Domtar (59,000 tons), Wausau (175,000 tpy), and Mohawk (70,000). Two mills restarted: Gorham (80,000 tpy) and Grays Harbor (150,000 tpy).

A recent shift is Domtar's conversion of communication paper capacity at the Bennettsville, South Carolina mill to specialty and packaging papers including base stock and packaging grades such as confectionary wraps and similar uses. Domtar will use some of this to supply base paper for Appleton's thermal coater in West Carrollton, Ohio, following the shutdown of the paper mill at the location. Thermal point-of-sale papers (POS) are a growing segment used for many applications including ATM machines, retailers and grocery stores, tag, ticket, label and entertainment applications (lottery tickets, movie theater and event tickets, product labels, parking tickets). The move reduces UFS capacity by 270,000 tpy and switches it to 160,000 tpy of specialty grades.

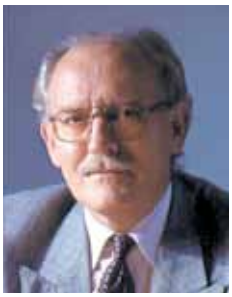
Pricing Steady... for the Most Part

As I mentioned earlier, uncoated freesheet pricing held steady for much of 2012 but late in the 3rd quarter some prices slipped for the first time since early 2012. Prices on most major grades are reported to have held steady from March to September and in fact have remained steady over the last several quarters, moving up or down a minor amount, but remaining in a narrow range. Domtar, the largest producer, reported in fourth quarter 2012 that average transaction prices on uncoated freesheet were down $14/ton vs. the third quarter, and off $26 per ton vs. fourth quarter 2011 levels.

An extremely weak month of December helps explain the late year price slippage to some extent. North American uncoated freesheet shipments plummeted 7.9% to just 740,000 tons and resulted in an 80% operating rate. This is the weakest level of shipments in a long time. Early in 2013, uncoated freesheet prices appear to have stabilized despite poor demand and weak levels of production.

For 2013 it appears little should change in the overall tone and direction of the market. As demand shrinks producers will shift grades and shut down capacity as needed. Prices are likely to remain steady although the rise in pulp prices and energy may entice producers to try for an increase in the spring. There is some concern that the restarted capacity will unbalance the market as will coated mills making uncoated paper. Growing capacity in China is also of some concern. As long as producers continue to play the hand they are dealt — and play it well — the market should remain calm and on a steady course. ■

Harold Cody is a contributing writer for PaperAge. He can be reached by email at: HCody@paperage.com.



Departures and Arrivals in Europe

The big U.S.-based companies are leaving or scaling back in Europe, but Asian firms are moving into the region in growing numbers.

By David Price

In the last three years, Georgia-Pacific, Procter & Gamble, and Kimberly-Clark have all either sold their operations or reduced their presence in Europe for reasons of cost-cutting, high energy and compliance costs, mature markets, narrower product focus and low-cost competition from East European and Asian producers. The exception has been International Paper, which is still expanding, especially in Russia.

In contrast, Japanese, Indian, Thai and Chinese paper and board makers are buying or merging with European paper producers. What is not clear is whether the Asian players are here to sell their products in what is a new market for them, or if they're here to acquire the technology which will allow them to transfer it and then upgrade their operations back home.

Arnaud Montebourg, French Minister for Industrial Renewal (left) congratulates Thirawit Leetavorn, Sr., Vice President, Double A (right), after signing the agreement to finalize the acquisition of Alizay pulp and paper mill in France.

Departures

The main paper-related sector in Europe in which U.S. firms are leaving is tissue. European companies enjoy modest profits in this grade but North Americans seemingly do not. P&G was the first to leave, followed by GP. K-C recently announced its exit from the diaper business and closure or divestment of many of its consumer tissue mills — Alanno, Klucze and Resiholz. This move has altered the tissue landscape in the region as Sofidel (Italy) and SCA (Sweden) consolidate their presence. This concentration will certainly strengthen the region's producers in their negotiations with the large retail chains.

The big question now is: who will take over after K-C when SCA is no longer a buyer? What will happen when more and more of the smaller European tissue producers get into trouble? An Italian consultant told me the Asians will start buying.

Arrivals

So far the main Asian players in Europe are Itochu (Japan), which nine months ago bought 25% of Metsa Fiber; Birla (India), which has bought Domsjo Fabrikerna, a specialty cellulose company in Sweden; and Double A (Thailand), which bought the closed Alizay paper mill (formerly owned by Metsa Board) in France. This was acquired from the French state which took on Metsa's local liabilities for jobs and the environment.

Consultant Clive Suckling comments: "Chinese and Indian companies have been looking at European acquisitions for some time. The European market is mature, it's sophisticated, but it's a lower risk environment for investing. Being in this market provides a platform for learning that can be transferred to home markets. APP (Indonesia/China) — via Paper Excellence — has bought several companies in France and Germany, e.g. Papierfabriken Scheufelen. Birla is a major provider of rayon staple fiber and has been backwardly integrating into DIP production, especially in Canada and now Sweden. The surprise move is Double A. I have no idea how they will make [the Alizay mill] work as Thailand is not a low-cost pulp source. Still the entry price is low."

Enter China

So where does China fit into all this? It's not immediately obvious. But the clue is in its vast tissue capacity expansion.

> Chinese and Indian companies have been looking at European acquisitions for some time. The European market is mature, it's sophisticated, but it's a lower risk environment for investing.
>
> *— Clive Suckling, Industry Consultant*

Esko Uutela, a Finnish consultant on global tissue trends, has recorded massive plans by APP China and Hengan to build or import 66 tissue PMs (42 and 14 respectively), which will add just over 2 million tpy of new or reconditioned tissue capacity by 2015. Modernization of the tissue sector is one of the priorities in China's current Five Year Plan. In fact some foreign and Chinese companies that are not part of the tissue sector have decided to become tissue producers.

To build or acquire 66 tissue machines, and get them operating in two years is a huge undertaking. I rang around a few of the tissue machine suppliers and they were confident they could build them quickly enough for 2015 start-ups. Some observers, including me, are not so sure. In fact, I think Chinese tissue ambitions are unrealistic. Is it a good thing that European tissue machine manufacturers are, for the foreseeable future, totally dependent on Chinese orders?

Also, I do not believe the suppliers can fulfill the demand for new machines in the next two years, so the shortfall will have to be met by used machines whose knock-down prices will exceed any "fire sale" you care to mention. An Italian supplier told me he has had direct calls from Shanghai asking what's for sale. He will shortly be attending a tissue mill auction at which he will be a telephone bidder for his Chinese client. In addition he is trawling Europe looking for tissue machine sales.

So once again, I'm left with the thought that as the North Americans leave Europe (will they ever come back?), China is now the main player in our industry and for some time to come. ■

David Price is a contributing writer for PaperAge. He can be reached by email at: DPrice1439@aol.com.

Lift and Shift

Domtar's President and CEO says the changes taking place in today's world offer new opportunities to unlock greater value from the wood fiber the company has built its history on.

By John O'Brien, Managing Editor

As, John Williams, heads into his fifth year at the helm of Domtar, much of who he is and what he believes in has rubbed off on the company in terms of its identity, what it does and where it's headed — and that's a good thing for everyone involved.

Williams, who has a colorful, matter-of-fact way about him, explains that pulp and paper manufacturing remains the heart of Domtar's business, but also points out that as the world's needs change when it comes to paper and pulp-related products, so too will Domtar's position as a producer of those products.

Under Williams' leadership, Domtar has made strategic adjustments to its uncoated freesheet paper business and in the manufacture of hardwood, softwood and fluff pulp. In the first quarter of 2012, Williams struck a 15-year paper supply deal with Appleton whereby Domtar will supply Appleton with most of the uncoated base paper the company needs to produce its thermal, carbonless, and other specialty paper products.

But Williams also possesses the vision to see beyond simply paper and pulp. In 2012, Domtar completed two acquisitions to complement its U.S.-based Personal Care business and its flagship brand — Attends — with Attends Europe and the R&D engine EAM Corporation.

Williams is also no stranger to inviting innovation into the mix. In January 2012, Domtar started up of the world's first nanocrystalline production plant (CelluForce) at its Windsor pulp and paper mill in Quebec. In addition, Domtar currently is in the process of completing the installation of commercial-scale lignin removal capacity — a process that separates and collects lignin from pulping liquor — at its mill in Plymouth, North Carolina.

Williams is also a driving force in establishing the "greenness" of Domtar and safety in the workplace. The company's environmental efforts have been widely recognized in the areas of sustainable forest management as early adopters of Forest Stewardship Council certification, for environmental transparency with the award-winning Paper Trail website (www.papertrail.com), and safety with Domtar's Windsor mill receiving PAPTAC's 2012 Safety Leadership Award.

Without a doubt, Williams and the people of Domtar have earned the distinction of building a well-positioned, forward-thinking company. And to that charge, *PaperAge* has selected Domtar's President and CEO, John Williams, as its 26th annual "Executive Papermaker of the Year."

"I have the courage of my convictions and I think that rubs off on those around me."

— *John Williams*

You came to Domtar in January 2009 succeeding Raymond Royer as President and CEO. What did you see in Domtar that attracted you?

What attracted me first and foremost was Domtar's leadership position as the largest producer of uncoated freesheet in North America as well as in terms of sustainability performance. And as a proud ex-pat, the fact that the company traced its lineage back to mid-19th century England didn't hurt either!

How did things go for you initially after accepting the position?

I was hired in August of 2008, the financial meltdown happened in November of 2008 and I started on the job in January 2009, so let's just say the first year was interesting on a lot of levels. But for me the move represented the next logical step in my professional journey, the chance to really steer the ship in terms of not turning around but instead reorienting a company with great fundamentals, world-class assets. You could call it a "lift and shift" challenge. There was a pressing need to position the company for long-term success in the 21st century global economy. This is what I was drawn to and continue to be motivated and inspired by.

How would you describe your style of management?

I build a strong team around me and let them do what they do best. I provide the vision, resolve, and long view so necessary to succeed in a highly competitive sector in transition, within the exacting world of publicly-traded corporations. I have the courage of my convictions and I think that rubs off on those around me. Just as importantly, I don`t take myself too seriously…a little laughter is a necessary tonic to counter the stresses of the everyday and sustain teams so that they perform to their potential.

Last thing is that I put a lot of emphasis on the storytelling part of my job, in terms of explaining Domtar`s value creation proposition not only to investors but also to employees and customers to speak to the big picture questions, our corporate vision, mission and values, that make the company unique and are the foundation of our success. I also spend a lot of time with customers because without them, a business is very much a theoretical concept.

What values do you drive through the business?

I`m a big fan of the old 'keep it simple' adage. We need to think big but also focus on the details of implementation and cost control in the day to day.

My mantra when I started with the company in 2009 was that we needed to focus on the three Cs…Customers, Costs, and Cash…and that remains true today. In fact, mastering those is a basic fact of life, of survival, for all businesses. So all to say…dream big but keep your feet on the ground — or on the forest floor as the case would be for Domtar.

Domtar took "measured steps" into the consumer products market, or more specifically adult incontinence (AI) products, with the acquisition of Attends in September 2011. Could you tell us about what lead you and others at Domtar to pursue a move outside of traditional 'commodity' paper products?

Uncoated freesheet demand is declining at 3-4% per year in North America. The digital world isn't a blip in time, it's here to stay and it's a reality we embrace at Domtar. We just happen to also believe that paper will always have a

place beside pixels. But there's no getting around the fact that demand for uncoated freesheet will continue to decline and we need to adjust our business to adapt. This need to adapt isn't new in the wood products industry that goes back well into the 19th century; we're just living the latest phase of change and transition.

Our focus now is on sustainably extracting the greatest value from the renewable, recyclable and abundant material that is wood fiber.

What is the long term outlook for the adult incontinence products market?

We like to say that we get a new customer every 30 seconds! Globally, the adult incontinence market is an $8 billion business growing 4% per year. And with the demographic reality of aging populations in North America, Europe, China and Japan, this is a market where the fundamentals will just keep getting better. So the short, medium and even long-term, as much as market demand projections looking out that far hold water, are all very positive.

This is why we are investing so much energy in making our new Personal Care business a big part of our growth and corporate repositioning story.

Attends is a business of Domtar, so how do the two companies interact?

In 2012 we created a third segment alongside our Pulp & Paper and Distribution segments — Personal Care. Our acquisitions of Attends North America and then Attends Europe in fact brought back together two businesses that were formerly under the P&G umbrella. We now have a global business where we can consolidate an established brand on both sides of the Atlantic and build market share based on investments in the facilities we have in North Carolina and Sweden, as well as future acquisitions opportunities that may come along.

In terms of interaction points, a few proof points that spring to mind are the fact that our Personal Care segment President, Mike Fagan, is a member of our Management Committee, so he is involved at the highest level in the strategic decision making of the company. Another one is the fact that at the operational level we forward integrate some of our Lighthouse™ fluff pulp from our Plymouth Mill for the production of AI products sixty miles away in Greenville, North Carolina.

Finally, we have included our Personal Care segment in our sustainability framework that we'll be using to track our performance and reporting to out to 2020 and beyond. So when it comes to integration, while it`s not yet completed, we are making great strides and we see ourselves as one company, one family, building our future in fiber, together. The next chapters of the Domtar story can't be written without the ones that came before them.

The acquisition of Attends was followed by the purchases of Attends Europe and then EAM Corp. How does EAM fit into the personal care picture?

EAM is our AI innovation engine; our product differentiation proposition that will be an important part of our success going forward in this growing but highly competitive market.

Domtar's largest business is uncoated freesheet and it had a good 2012. What are you doing to keep this business healthy?

We had a good 2012, but we're never satisfied and we're always looking to our next challenges. Our profitability as

The former uncoated freesheet machine at Domtar's Marlboro mill in South Carolina is part of a $30 million capital project for re-purposing the mill for the production of specialty and packaging base papers.

measured by EBITDA declined by some $300 million, the majority of which was due to pulp pricing pressures that are out of our control.

Going forward we're going to do what we've said we needed to do for a number of years now…slowly unplug some of our uncoated freesheet capacity as demand declines and replace it with GDP growth-aligned specialty and packaging papers, as we've done in Marlboro under our long-term thermal base paper supply agreement with Appleton.

Could you give us some background on the paper supply deal you struck with Appleton?

We actually have a long and established business relationship with Appleton Papers, pre-dating this supply deal. When they came to us with this opportunity, we looked at the synergies and it just made good sense for both parties in terms of our ability to provide them with low-cost, high quality uncoated base stock for their coated specialty paper production.

It's a 15-year, over $3 billion deal that will see us replace high-volume communication paper production at our Marlboro Mill with specialty thermal base paper that Appleton uses to make point-of-sale paper — the stuff you see rolling out of cash registers and debit and credit card payment machines.

Are you currently producing paper for Appleton?

Yes we're producing. Most of the conversion is already complete. Some production ramp-up remains, but we expect this to be completed by mid-2013.

Domtar produces some 4.2 million metric tons of pulp per year and you've recently built out that business with the reconfiguration of the Plymouth, North Carolina mill to fluff pulp production. Why Plymouth for fluff pulp?

Worth noting that of this 4.2 million metric tons, the vast majority is consumed internally to make paper and consumer products. Our external sales amount to 1.6 million metric tons.

For the rationale behind the Plymouth conversion, it was already producing fluff pulp on a small machine, so we had existing expertise. Geography was also key. Plymouth is in a fiber basket rich with loblolly pine — the premier fiber for fluff pulp. Plus the North Carolina mill was close to a major port for shipping overseas. So the combination of the macro decline in UFS demand combined with strong demand fundamentals for fluff pulp globally, along with a fiber basket and proximate port, together this sealed the deal and we couldn't be happier with the way the conversion has gone, the positioning that it's given us.

Domtar set itself apart from the industry going back to 2000 with early adoption of FSC certification.

Could you touch on future plans for Domtar's pulp and/or fluff pulp business?

As we gradually unplug our paper making capacity and potentially become longer on market pulp production, you`ll see us shift our production mix away from hardwood that predominates in our mix for paper production, towards a greater amount of softwood, in line with market demand and where we're not competing with lower-cost hardwood pulp producers from South America.

You're in the process of installing an energy-related technology called LignoBoost at the Plymouth mill. Could you tell us a bit about it?

Separation and commercial production of lignin at our Plymouth mill made sense because it allowed us to incrementally increase our fluff pulp production capacity by de-bottlenecking the recovery boiler there. So there was an immediate production benefit while we work on developing the market for lignin-based bio-products and the new revenue streams that will come with it.

Domtar is in a joint venture with FPInnovations in the production of Nanocrystalline (NCC) at Domtar's Windsor, Quebec mill. How is the progress towards commercialization of NCC going? Is this a technology you might install at other facilities?

We're one year in and we're making progress. We knew from the outset that working up to commercial-scale production of cellulose nanocrystals was going to take some time, and developing a market for this amazingly strong, iridescent material would take years not months. So we're patient, we're keeping a long view. This is a part of our corporate transformation story, but like all R&D investments it's not going to happen overnight.

Is this a technology you might install at other facilities?

At this pre-commercial stage, for now Windsor remains the sole nexus of this particular R&D play. Time will tell and like I said, we're patient.

You've said sustainability is at the heart of what Domtar is all about. How so?

As a company founded on procuring, processing and marketing a natural but renewable resource, wood fiber, it's of course in our interest to do everything we can to ensure that this key production input remains abundant and accessible, i.e. that we champion sustainable forestry management.

Domtar set itself apart from the industry going back to 2000 with early adoption of FSC certification — the company thought it was the right thing to do then and history has supported the wise decision of my predecessor Mr. Royer. Building on our deep credibility built up over years of demonstrated commitment to and progress on this issue, we recently committed to eventually sourcing 100% of our fiber supply from FSC certified forests.

What strategic priorities are in place at Domtar as the company moves forward?

We've understood for some time now that our path of success lies in unlocking greater value from the wood fiber we have built our history on. So as we move forward you'll see us taking what we have always done and turning it to an end-use with growth potential — be it specialty and packaging papers, bio-chemicals using the natural properties of wood fiber, or forward integrating our fluff pulp to serve the global growth market of adult incontinence care products.

Through it all we remain steadfastly focused on our three strategic business objectives: growth into growth markets, reduction of earnings volatility, and use of capital that creates long-term value. ■

DR. OMYA CONGRATULATES DOMTAR ON BEING A TOP 100 GREEN COMPANY.

Congratulations to John Williams and Domtar's 10,000 employees for their unwavering commitment to innovation and sustainability. Being named a TOP 100 Green Company not only reflects well on our industry but inspires all of us to keep pushing for new ways to be more environmentally-friendly. For over 20 years Omya has been the right partner for Domtar with innovative and environmentally-friendly products. Plus, we have new digital coating and other exciting technologies on the horizon.

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New Developments in Roll Cover Embedded Systems

Latest innovations in SMART® Technology measure multiple nips and MD nip width, even on shoe presses.

By Eric J. Gustafson

Paper producers have used embedded sensor technology in roll covers for several years to improve process efficiency. Initially, these systems were sparsely used, but in just a few short years they have become commonplace with many mills employing multiple systems to monitor different parts of their process. This rapid growth is a testament to the value derived from these systems.

Armed with accurate, real-time nip performance knowledge, operators can adjust operating parameters and make corrections. These systems have quickly identified improper cover crowns, biased loading, and uneven roll cover wear resulting in reduced costs through extended cover and clothing life, reduced downtime, lower raw material consumption, and reduced energy costs. Embedded sensor technology is field-proven and providing documented results.

THE EVOLUTION OF EMBEDDED SENSOR TECHNOLOGY

Advanced embedded systems now have the capability to include double-nipped applications and machine direction pressure measurement. Previous versions would not perform in covers with two mating rolls — a critical application. Clusters of rolls deployed in paper making machinery create challenging interactions between the various rolls in the cluster. These interactions must be managed for efficient performance. The stiffness, crown, vacuum level, clothing tension, and loading of each roll affect the deflection of every other roll in the cluster. For this reason, irregular loading problems originating from roll clusters are often difficult to diagnose and resolve.

Advanced embedded systems now also provide machine direction data. Three-dimensional measurement of press nip impulses enables the total optimization of nip performance. This three-dimensional nip knowledge is essential to simultaneously maintain cross machine quality and improve pressing effectiveness.

DOUBLE NIPPED APPLICATIONS

Two supercalender applications illustrate the double nipped capabilities. The first application is employed in a machine producing coated paper with the sensors embedded in a Genesis AP composite supercalender roll cover loaded to 315 – 385 kN/m (1800 – 2200 pli). The SMART® roll has run in all three covered positions of this stack (**see Figure 1**).

The mill's production process suffered from three recurring problems: hard edges on the calender reel, impression defect at the tending side quarter point, and a loading bias that frequently required higher drive side actuator loading.

With the embedded sensor system installed in the top covered roll position, it monitors the pressure profile of Nip 1 and Nip 2 — the first two nips the paper passes in the stack. **Figure 2** shows two profiles of Nip 2. The profile labeled "Swim Roll – No Crown" shows high loads at the sheet edges that occur with uniform hydraulic pressure across the queen roll. By reducing the crown in the queen roll, the mill is able to decrease the edge loading and flatten the profile as shown by the blue line labeled "Swim Roll – Crowned". The mill uses this feedback with the crown-adjust feature to control the hard edges and build a uniform reel.

The sheet impression defect occurred at the front quarter

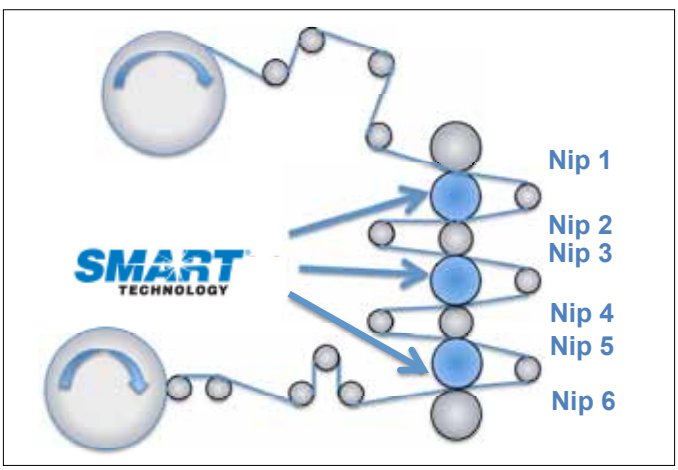

Figure 1

point. This defect could be seen in the paper but was not easily felt. Diagnosing its source from the cluster of calender rolls was challenging. By installing SMART technology in the bottom covered position, the mill was able to monitor the profile of Nip 5 and Nip 6. **Figure 3** shows synchronous pressure profiles of these two nips. A single embedded sensor array measured the profiles shown in Figure 3. This single array measured a localized low load region corresponding to the recurring paper impression defect. This localized low load region appears in Nip 5 but not in Nip 6 despite being synchronously measured by the same sensor array. Once the defect's origin was identified, the mill ground the questionable roll, eliminating off-grade paper and reducing waste.

A third issue for this calender is a load bias. Typically, the drive side must be loaded more than the tending side to produce a uniform profile. This condition, however, can change during machine operation. Without profile feedback, the mill must use reel spool hardness measurements as the log builds to recognize a correction is required.

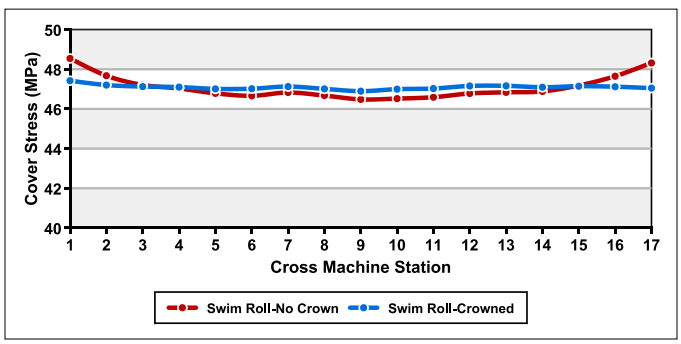

Figure 2

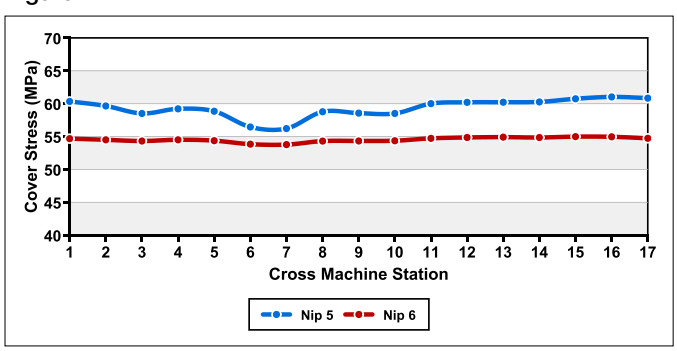

Figure 3

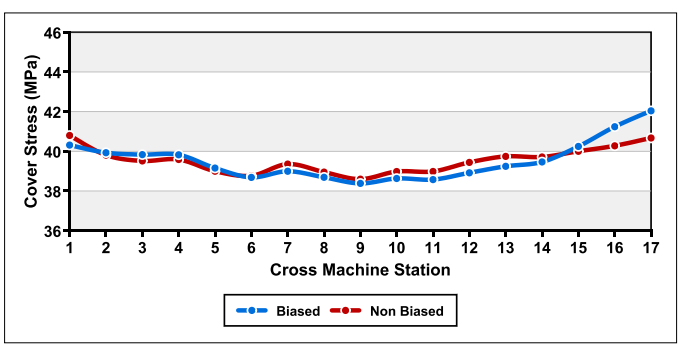

Figure 4

SMART technology provides instant feedback. As an example, **Figure 4** shows two pressure profiles measured in Nip 1 less than 24 hours apart. Both profiles show an under-crowned loading condition intentionally used to control hard edges. The profile labeled "Biased", however, shows a bias load in addition to the under crowned condition. The end-to-end pressure difference of the unbiased profile is 0.3% while the end-to-end difference of the biased load is 4.2%.

With instantaneous profile feedback, operators can easily control the reel build. Prior to using embedded technology, the mill measured the reel hardness profile by hand with a portable meter. This process created a feedback delay as the hard ends could not be detected until a certain amount of off-caliper paper was wound. Then the operator would over compensate the loading on the yet-to-be-wound paper to compensate for the paper that had already been wound. With the embedded system's instantaneous feedback, the mill omits the feedback delay, has better control, and can more efficiently build the spool. Waste caused by winding defects is reduced.

The second application is employed on a machine producing wood-free coated paper at 685 mpm (2,250 fpm). Sensors are embedded in a Stowe Woodward Genesis XT calender roll cover loaded to 360 kN/m (1750 pli). With the composite covered SMART roll located in the fourth position, which is the bottom double finisher, it can simultaneously measure its nip to the cotton roll above it and its nip to the metal roll below it (**see Figure 5**). Along with the pressure profile, the embedded system monitors the standard deviation of the pressure loading.

Cotton rolls require frequent maintenance because their surface degrades and requires refurbishment. The SMART roll cover detects this degradation by means of an increased standard deviation in the pressure profile. **Figure 6** shows the coefficient of variation versus time for the cotton/composite nip and the metal/composite nip. COV is used in this analysis to eliminate the load levels between these two nips. The data show that the cotton/composite nip pressure varies slightly more than the metal/composite nip throughout the run, but

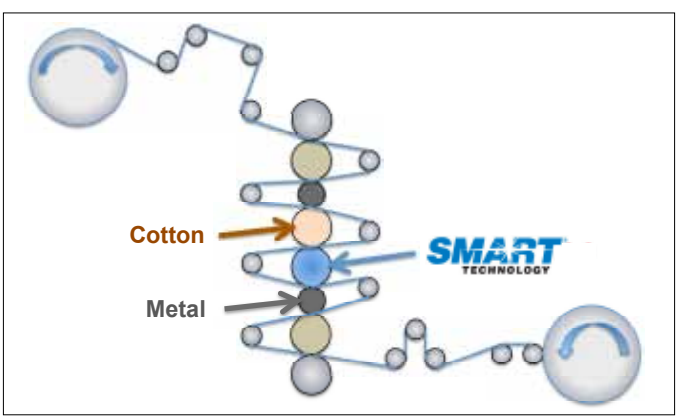

Figure 5

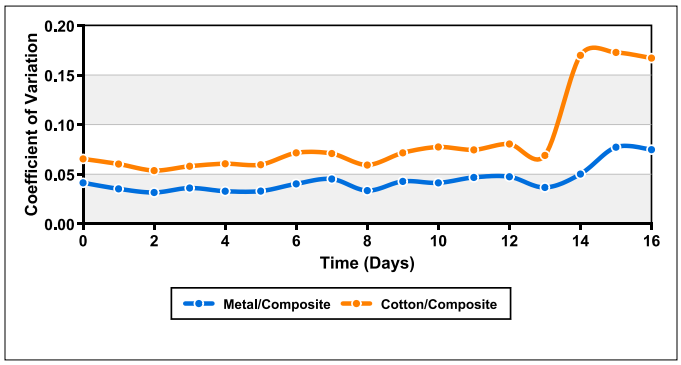

Figure 6

as the run time approaches a couple weeks, the COV for the cotton/composite nip rises dramatically. This degradation is not gradual, but progresses rapidly once started. The effects of the degrading cotton roll also adversely affect the metal/composite nip as its COV rises simultaneously, albeit not to the level of the cotton/composite nip.

This finding enables the mill to use the embedded system to monitor the performance of the cotton calender rolls and to efficiently plan their removal for refurbishment.

THREE DIMENSIONAL DATA

While the desired cross machine profile maintains quality, the machine direction profile determines pressing effectiveness. The machine direction pressure profile between nipped rolls has several characteristics that determine the nip effectiveness. One characteristic is the peak pressure. If the peak pressure is too high for a given paper grade or position within a machine, sheet crushing, sheet densification, felt compaction, and other non-desirable effects occur.

A second characteristic of the machine direction pressure profile is its width — the nip width. Nip width is an important dewatering parameter for many paper grades. When considered together, these two characteristics can provide additional insight. For example, an observed increase in nip pressure could be an indication of a load increase or it could be an indication of a system (cover, clothing, paper web, etc.) stiffness change. By considering the corresponding nip width change, the observer can be certain of the cause.

For the first time, SMART 5.0 provides functionality to measure and report the shape of the impulse curve in real time. **Figure 7** shows an example from a size press nip. The combined peak and nip width increase confirm a load increase on the tending end.

Shoe press nips also have opportunities for optimization. While the shoe press nip width is defined, the machine direction profile may vary and affect performance. Unlike the nearly symmetrical shape of a roll pressure pulse, the shoe press pulse is asymmetrical and may contain multiple localized pressure peaks. An improper fit between the roll diameter, clothing caliper, and shoe arc may lead to these inefficiencies.

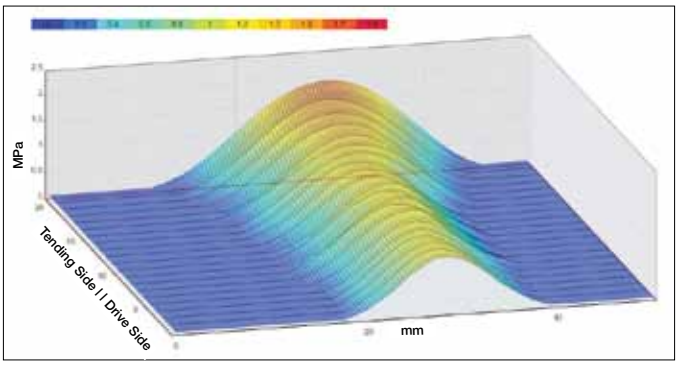

Figure 7

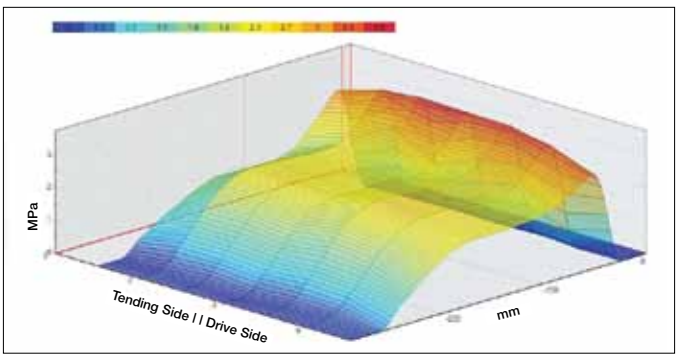

Figure 8

Some shoe presses are equipped to control the pressure ramp rate and machine direction location of the peak pressure.

SMART 5.0 embedded sensor systems have been deployed for shoe press mating rolls to identify these inefficiencies. One such system was installed in a board machine shoe press running 1000 mpm. The nominal press load is 875 kN/m. **Figure 8** is a plot of the data collected from this system.

The plot shows a slight drop in pressure on the tending side. In the machine direction, the pressure ramp is not excessive showing a peak near the trailing edge of the shoe. The lack of a localized peak near the shoe center and the lack of dual peaks at the entrance and exit of the shoe indicate the roll diameter, machine clothing, and shoe arc are compatible.

SUMMARY

With over 325 SMART Technology orders around the world, this unique system has already delivered millions of dollars of documented savings. Now this technology has made the next technological breakthrough with SMART 5.0. These enhanced systems can distinguish between the two pressure profiles on covers with two rolls mated against them and can provide three dimensional pressure mapping for pressing applications. Further capability enhancements for SMART Technology are already underway. ■

Eric Gustafson is the Director of Engineering for the Stowe Woodward Global Rolls Technology unit of Xerium Technologies. He has worked in the engineering and development areas of the paper industry for more than 25 years. Eric can be reached by email at: eric.gustafson@xerium.com. For more information, please visit www.xerium.com/SMART.

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Top 10 Tips for Pulp and Paper Mill Preventive Maintenance

In the pulp and paper industry, preventing problems is infinitely preferable to having to cure them.

By Dan Duncan

Between 60 to 80 percent of all equipment malfunctions on QCS (Quality Control System) scanners and other equipment located throughout the pulp and paper making process are caused by incorrect maintenance. Maintenance should include basics like detailed cleaning, lubrication, alignment and following operation and installation procedures.

In particular, pulp and paper mills are conducive to harsh environments, producing lots of dust and heat. Elimination or reduction of the effects of such dust and heat on pulp and papermaking equipment is critical to the healthy performance of a mill. A preventive maintenance campaign means that equipment failures, which result in production downtime and reduced profits, can be kept to a minimum or even prevented entirely.

Following, are the top ten tips for ensuring maximum system availability throughout a pulp and paper mill.

1. Keep it clean. If dust is not controlled, then it can cause many potential risks in terms of measurement accuracy and overheating of critical electronic components. Dust is controlled using a well-developed head package design and well-engineered air wiping devices.

Distributed Control System equipment in particular should be sealed against the ingress of dust, as electronics coated with dust are particularly prone to overheating which can cause failures.

Particularly dirty areas should ideally be redesigned to protect equipment from dust. Keeping things clean also allows other problems to be spotted and rectified more readily. Cracks, leaks, loose connections and other problems are more easily found if the item is not covered in a thick layer of dust.

2. Be systematic. A good preventive maintenance schedule is one that is based on first-class record keeping. A logbook should track: what has been checked; what was found, and any corrective action that was taken. These records form a platform on which to base preventive maintenance schedules.

At a minimum, the logbook should include what, how and why an inspection was done.

3. Inspect regularly. Weekly checks on the quality control scanners can mean inspecting the sensor window material for damage or wear. Early detection of these problems will ensure sensor accuracy and hence more efficient production costs.

Monthly maintenance and verification checks as well as an annual inspection, in addition to regular maintenance on scanners and sensors, are to be carried out to ensure that the scanners and sensors give optimum performance through their entire lifetime.

Ideally, equipment should be inspected while operating not only to minimize shutdown time, but also to detect such things as vibration, correct operating pressures and leaks which cannot be assessed on stationary equipment.

A key strategy is to control who implements the preventative maintenance procedures and to have an agreed planned program of work.

4. Maintain scanners. Scanners and their onboard sensors are fundamental to maintaining quality.

The probability that a scanner will fail increases after three to ten years of operation. One of the main reasons for failures is aging of components, but it can be affected by environmental conditions, such as dust and heat and therefore maintenance is key.

Preventive maintenance for scanners should involve:

- Visual inspection of the system and its environmental conditions
- Inspection of the connections
- Inspection of the ribbon and fiber optic cables.
- Functional inspection of the fan and cooling system
- Inspection of the health pages and alarm history
- Inspection and storage of the parameters
- Functional testing of the system under normal conditions
- Basic measurements with supply voltage
- Inspection of the spare part inventory
- Cleaning of the system

5. Apply regular maintenance to drives. Variable speed drives keep the plant moving, so regular preventive maintenance is vital to maintain their health. Keeping drives and motors clean ensures they are within their operating temperatures and helps achieve the best possible efficiency.

One of the options is to keep an eye on the drives in a plant remotely. This allows such features as drive system parameter verification, parameter changes, on-line measurements, changes to application software, upgrades to system software, remote guidance and written instructions sent to the maintenance PC.

Ideally, equipment should be inspected while operating not only to minimize shutdown time, but also to detect such things as vibration, correct operating pressures and leaks which cannot be assessed on stationary equipment.

6. Upgrade motors. Motors are another essential in the drive chain and those designed for high reliability will help maintain availability. A new motor for process industries has a 20-30 percent greater cooling surface than its predecessor, reducing the internal temperature considerably. This gives longer component life and will protect motors from overheating. With improved cooling, lubrication intervals are 50 percent longer, as lower temperatures increase the life of the bearing grease.

7. Assign the right people for maintenance. A key strategy is to control who implements the preventative maintenance procedures and to have an agreed planned program of work. The best results are achieved when specific people with the correct training are given personal ownership.

8. Give the right training. Employees should be trained in correct normal operation, so as not to exceed the device's parameters, and in what to do when problems occur. Shift engineers need the training so they know all about the operation of the system. Training the staff only when the equipment is commissioned and not be concerned about maintaining current training can lead to more call outs to service engineers than needed, resulting in production delays.

9. Get professional help. Many vendors will also perform on site preventive maintenance. The best vendors will assign dedicated field service engineers to a mill to develop a close relationship with mill personnel. This means that the field engineers are informed about the shutdown schedules so they can plan the more intensive maintenance activities and ensure that the installed base is operating in peak condition.

An alternative to performing preventive maintenance on site is to consider sending modules to the vendor's own workshop. If a module is to be sent to the workshop for repair, it is often practical to perform preventive maintenance at the same time.

Customers can also choose to have Remote Diagnostic Services (RDS). RDS offers facilities for monitoring current performance against benchmark data using asset monitors. This provides opportunities for predictive maintenance and all of its benefits.

10. Develop models and programs to enhance maintenance. Many maintenance service companies provide the process and manufacturing industries with a structured program to improve and sustain the performance of production assets. The best of these arrangements occurs when the client and the vendor work together as a team to develop a business model that supports the client by providing world-class reliability and maintenance services.

ABB, for example, offers Assured Performance Agreements that provide a pulp and/or paper mill with a flexible selection of services tailored to the operation's key service requirements. These will help optimize equipment performance and maintenance costs, leverage asset lifecycle service developments from ABB, and improve operational excellence and performance.

Look for a risk/reward performance mechanism that ensures continuous improvement opportunities are identified and captured over the life of the service contract. ■

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index of advertisers

Packaging Matters

Study Says Fewer Than 20 Percent of U.S. Consumers "Very Satisfied" with Packaging.

MeadWestvaco has launched its inaugural consumer satisfaction study, "Packaging Matters." The study explores the role of packaging in product satisfaction as consumers purchase, transport, use and dispose of products across 10 different categories. The results suggest that packaging satisfaction can have a significant impact on purchase intent and repeat purchase, and that there is a low level of satisfaction overall, especially once consumers leave the store and rely on the structural or functional features of the package at home or on-the-go.

In terms of importance, consumers want packaging that protects from breaking or spilling (74 percent), maintains product integrity (72 percent) and gets the entire product out of the package (66 percent).

The study clearly shows that when it comes to purchase intent and product satisfaction, packaging does matter. A majority of consumers will sometimes buy a product off the shelf without prior knowledge of it (64 percent) and rarely use mobile devices to research a product while shopping (72 percent). While quality (85 percent) and price (67 percent) are the most important factors contributing to overall product satisfaction, consumers report little variance in importance between a product's brand (12 percent) and packaging (10 percent).

Despite the importance of packaging, there is a clear opportunity for improvement: Fewer than 20 percent of U.S. consumers report they are "very satisfied" with product packaging, with the least amount of satisfaction from carry-out food containers and beauty care product packaging.

"The research further proves that packaging is one of the most powerful tools in the marketing communications mix, but as it stands now, packaging does not delight consumers," said Brian Richard, director, Consumer & Customer Insights, MWV. "Brands should view the current gap in satisfaction as an opportunity to make improvements to their packaging by focusing on what matters most to consumers."

Packaging Satisfaction Ends on the Shelf

The study identified "satisfaction gaps:" the importance of different packaging attributes compared to their perceived performance. Of the 15 packaging attributes studied, only a small percentage of consumers ranked shelf appeal, or the product's "attractiveness" and "distinctiveness," as "very important" features to their satisfaction (6 percent and 10 percent, respectively). However, this is where brands were performing best, with performance exceeding importance. While brands are generally pleasing consumers during the shopping experience, satisfaction drops dramatically when product packaging is relied upon for transport and storage and then when the product is used and reused.

The largest satisfaction gaps across categories all relate to the structural features or functionality of the packaging. In terms of importance, consumers want packaging that protects from breaking or spilling (74 percent), maintains product integrity (72 percent) and gets the entire product out of the package (66 percent).

"Packaging satisfaction decreases significantly after consumers leave the store, at all touch points along the product lifecycle, such as transporting, storing and using the product. This is a huge missed opportunity for brands," said Steve Kazanjian, vice president, Global Creative, MWV. "Structural features of the packaging should be viewed as the most critical area for brands to make improvements to drive consumer satisfaction."

"Packaging that lives up to the brand promise of its marketing communications holds the most potential for repeat purchase," Kazanjian added. "As more retail migrates online, consumers are interacting less with brick-and-mortar channels. A disappointed consumer can switch brands with one click, so the role of packaging is increasingly an important vehicle for brand owners to connect with their consumers at touch points throughout the product's lifecycle." ■

Introducing

SMART® 5.0 TECHNOLOGY

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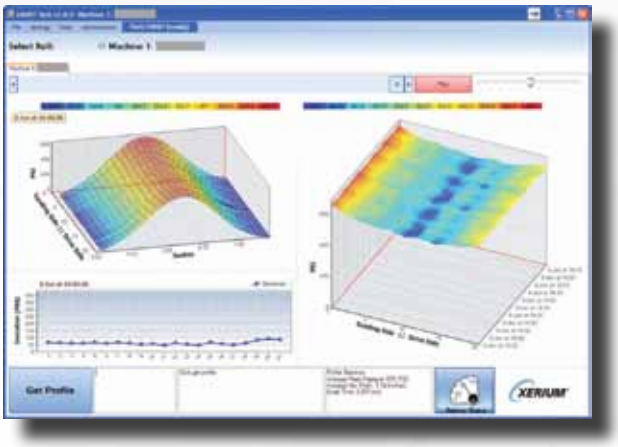
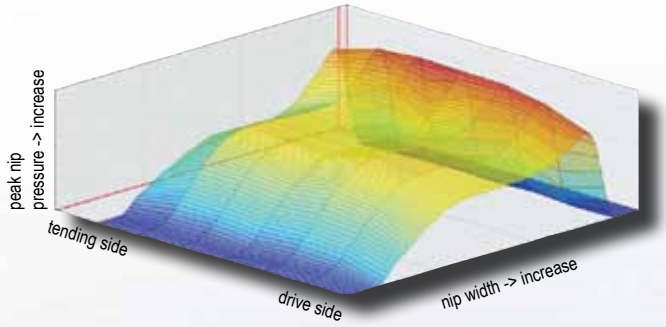
enhanced user interface reports real-time nip width, historical trends, and standard deviation



3-D shoe press profile



- Dynamically measures and displays machine direction (MD) nip width
- Shoe press nip measurements
- Enhanced connectivity software for mill DCS and PI systems
- Supports multi-nip positions for unprecedented simultaneous analysis
- Expanded pressure range enables installations from soft press nips to high intensity calender stacks
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