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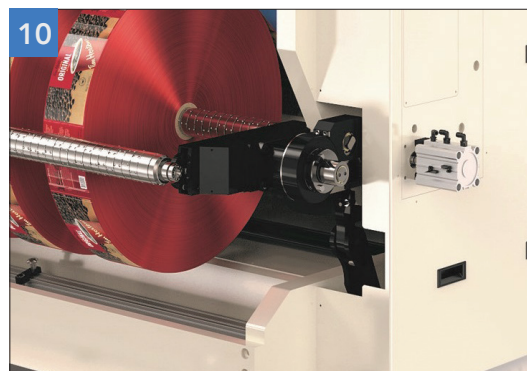
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Angel Morris
Editor

It's fitting that this month's cover story is about coatings, since coatings make me think of M&Ms and M&Ms make me think of candy and candy makes me think of Halloween and Halloween makes me think of October which, obviously, here we are! That's my roundabout way of saying that thinking is exactly what our cover story wants you to do ... not about candy (although when is it *not* a good time to have candy on your mind?) but instead about the variety of options when it comes to packaging coatings and laminations. It's always a good time for a little "outside the box" thinking in regard to coating methods and alternatives.

Speaking of alternatives, have you really considered the pros and cons between flexographic vs. gravure printing? Our industry leader shares how, from print run length to color radiance, the printing method you choose can make a difference in cost and final product quality. Diving into the basics of each type of printing, noteworthy differences are discussed. Consideration goes to cost, lead time, substrates, inks and environmental consciousness. Which will result in the highest quality product for you? Like choosing a Halloween costume as a kid, what fit you last year may not work today. Your printer of choice should always be willing to discuss the process that best suits your needs.

Remember what it felt like to dump out your candy-filled plastic pumpkin only to discover the container of your favorite bite-sized snack damaged or half open? It was enough to bring your 7-year-old self to tears! On a semi-related note, an expert discusses box adhesive coverage, the strongest glue-tab methods and where research is taking the topic with an eye toward eliminating box failure. Packaging members and the corrugated industry are invited to share their knowledge toward both premature failures and best practices as testers look for data supporting carton strength relative to size along with inside or outside flap.

We round out this issue with some exciting news from AIMCAL, The Association of International Metallizers, Coaters and Laminators, which recently announced a name change and re-brand. The group promises treats are in store, outlining upcoming courses, scholarships and member benefits.

Angel Morris
Editor-in-Chief
angelm@rdgmedia.net

P.S. If you're interested in contributing a thought leadership piece from an industry expert perspective, please contact me at the email address above.



A RDG Media, Inc. Publication
P.O. Box 529
Estero, FL 33929
586.227.9344
www.pffc-online.com

President/Group Publisher
Randy Green
randy@rdgmedia.net

Publisher
Lori Pisano
lori@rdgmedia.net
814.616.8380

Editor
Angel Morris
angelm@rdgmedia.net

Accounting Manager
Kristin Green

Systems Administrator
Angi Hiesterman

Operations/Customer Service
Jody Kirchoff

Web Design
Josh Scanlan

Auctions
Angi Hiesterman

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Thinking Inside and Outside the Coating Box

By **Tom Kerchiss**, Managing Director, RK Print Coat Instruments Ltd.

Packaging has evolved over the years to meet the demands of fast-moving consumer goods retailing, facing many masters and being answerable to all. Packaging plays a vital role in food marketing, and packaging materials must be chosen with care and for relevancy. On pack design, color, graphics and informational content must tick all of the right boxes. Packaging must look good

and stand up well when it's at the front line on the retail shelf vying for attention. But of course, packaging must also do so much more.

Packaging as mentioned, has many masters and a good few critics. Sustainability, care for the environment, less reliance on conventional plastics and a move over to materials that can be recycled or in some way be dealt with in an environmentally responsible way

are viewpoints so widely shared that they cannot be ignored.

Galvanized into action, chemists, scientists and packaging technologists are engaged worldwide in developing and trialing alternative, safer materials but this all takes time. As paper is regarded as being both biodegradable and recyclable, it is often looked upon by the media, environmentalists and consumers, and by print and

A folding carton doesn't even need to look like a box in the conventional sense, with a little lateral thinking – literally thinking inside and outside the box – it can be shaped into a number of geometric configurations including pyramids and circles.

packaging buyers as the material of choice. Paper and paperboard is versatile and for the most part will accommodate temperature extremes associated with some cooking methods. It will withstand the high temperatures associated with microwaves while at the other extreme frozen food items packed in treated cartons can be left in freezers for long periods without ill effect.

As with every packaging medium there are drawbacks that are not insurmountable but need to be taken into account. Paper and paperboard on its own is permeable to water, water vapor, fatty esters, oxygen, carbon dioxide and nitrogen. Poor barrier resistance make the substrate susceptible to volatile flavors and aromas.

Custom-formulated coatings, specially-treated internal liners and the coating and laminating of base material with PE, PETE, EVOH and other plastic polymers can considerably improve barrier resistance. The drawback, seldom

VCML reel-to-reel device.

mentioned, is that the positive environmental credentials associated with paper and paperboard could be regarded as being compromised. Research and development into alternatives is no doubt underway.

Papers and paperboards are available in many grades and include materials ranging from thin tissues to thick boards with everything in between. Products manufactured from these materials include: folding cartons and rigid boxes; corrugated and solid fiberboard transit/shipping boxes; multi-wall paper sacks, paper bags, coffee and tea bags; overwrapping papers; dry goods produce bags (flour, sugar) and sachets.

More often than not paper or paperboard is used in conjunction with another packaging material. Microwaveable meals and pop-in-

the-oven ready meals are generally supplied with sleeves or sliders that indicate and photo-realistically show the consumer what's inside the thermoformed or foil food container.

Another example would be composite containers, whereby the container tube is manufactured from spirally wound paper and the lid of tube or container is made of a flexible and lightweight plastic and the base of the tube is made from a disc of metal. A colorfully printed-paper wraparound makes for a distinctive item most of which is recyclable.

Let's just telescope in on one area of paper/paperboard – the folding carton. Folding cartons can be single or multi-ply, coated or uncoated and can be made from virgin and/or recycled



material. A folding carton doesn't even need to look like a box in the conventional sense, with a little lateral thinking – literally thinking inside and outside the box – it can be shaped into a number of geometric configurations including pyramids and circles.

Intricate and distinctive designs can be undertaken making carton material ideal for luxury gift items and for products such as Easter eggs. The surface is an almost perfect canvas for the brand owner and marketer to get a marketing message across and for the designer to give full reign to creativity. It can be printed using a variety of print processes including flexo and flexo UV.

Cartons can be extrusion coated or laminated. They can be die cut, creased and then glued or interlocked. They accept many value-added processes. They may be embossed, foil blocked, subjected to spot varnishing and readily accept on-the-fly PS-applied inducements to buy such as discounts and competitions.

Tackling problems on the fly and in the pressroom or coating shop environment is something

Coaters designed to offer a wide choice of coating/print and laminating options that can engage in small-scale production can be industry game changers, such as those that can be configured for hot air drying, infrared and UV curing, and for corona treatment.

that most companies would like to keep to the minimum. Manufacturers certainly don't want to market products that may at some point be returned to them because of complaints. The same applies to products produced in the converting shop on equipment such as a coater or laminator and destined to appear in the retail environment.

Arguably there has never been a time when substrates and consumables have been subject to so much attention. New or alternative materials such as adhesives need to be developed, trialed and evaluated. Print and process variables such as accuracy of color need to be brought under control, creating considerable interest in product development and quality control systems.

Coaters designed to offer a wide choice of coating/print and laminating options that can engage in small-scale production can be industry game changers, such as those that can be configured for hot air drying, infrared and UV curing, and for corona treatment. Edge guides and heated laminator and ATEX coating zones can also be integrated within such systems. Operators can print, coat and laminate on all types of flexible materials, on a reel-to-reel basis, applying various inks, varnishes, adhesives and even paints using environmentally acceptable formulations and solvent-based materials as and when needed.

Given the critical role color plays in communication, in mar-

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keting products and in shifting products off of the retail shelf, some form of monitoring and control device needs to be in place that brings visual acuity as well as process variables under control; a system that produces high-quality proofs using gravure, gravure-off-set or flexo inks.

Featuring electronically engraved printing plates, such a unit is designed so that two or more inks may be printed simultaneously for comparison purposes; registration is included for overprinting. Both wet and dry laminated samples can be produced on the machine using the gravure head with appropriate laminating accessories.

Also, equipment that helps eliminate waste and reduce process

machine downtime by color matching off press can be used for trialing new materials and processes. They can be used for R & D purposes – product viability, commercial viability and for quality control monitoring, to ensure the consistency of performance of inks and substrates over time.

Other uses include the evaluation of performance properties, computer color matching, data presentation and educational duties; machinery which highlights problems associated with the use of UV inks and helps reduce the incidence of penalty clauses being evoked when products either don't meet customer expectations or are delivered late because problems were not detected sooner. The key is a tailored spectral output for

heat-sensitive substrates, as well as an integrated miniaturized UV system so that printing and curing can be undertaken seamlessly. ■

ABOUT THE AUTHOR

As Managing Director, RK Print Coat Instruments Ltd., Tom Kerchiss continues the legacy of his father, who founded the company in 1962. RK surface coating equipment and supplies are exported worldwide to printing ink manufacturers, printers, converters and other businesses with color communication devices for all major print disciplines.



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Maximizing Labor, Time and Safety with Slitter Rewinder Automation

By **Keith Hamilton**, Sales Manager, Deacro Industries, A Davis-Standard Company

The converting industry continues to face limited labor resources and tighter profit margins. Specific to slitting rewinding, for applications such as medical and flexible packaging, pressure-sensitive labels and tapes, automation is gaining traction by allowing processors to do more with less.

In fact, full or partial automation of the slitter with turret rewind technology enables one operator to do the work of three when compared to non-automated. It also promotes time savings and operator safety. Following are automation options and the benefits:

Turreted rewind – One operator can unload rolls and position cores during slitter operation.

Auto web cut and transfer

– Cutting the slit roll tails and transferring tails to the next core is automated, saving time cutting webs and taping, and aligning webs to the next set of cores.

Razor web cut-off or optional sear/score – This enables cutting before turreting to keep tails short and maintain web alignment/tension on outside wraps while eradicating waste.

Auto core positioning and placement – With laser positioning, auto core loading from the hopper and auto core placement and cutting, the cores can be cut, loaded and positioned onto rewind shafts without operator intervention.

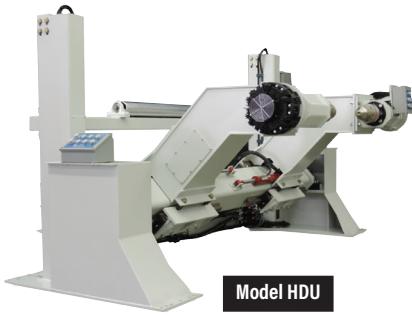
Digital knife positioning – By using a digital operator,

knife positions are saved in a file recipe database and a digital tape measurer shows the correct position. No manual measurement is needed and placement is accurate every time.

Auto knife positioning – This feature can be fully integrated into slitter controls for handling razor/sheer or score slitting, auto-calibration and auto knife position verification.

Auto roll unloading – Rolls can be automatically pushed off the rewind shaft with several receiving stations available per application. This eliminates manual movement of heavy rolls from slitter rewinder shafts. You can also implement palletizers with pivot features to prevent unnecessary

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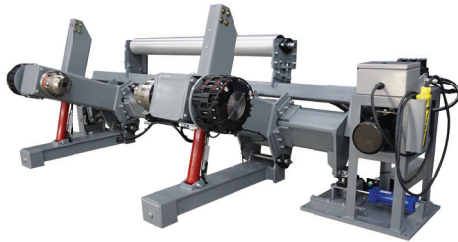
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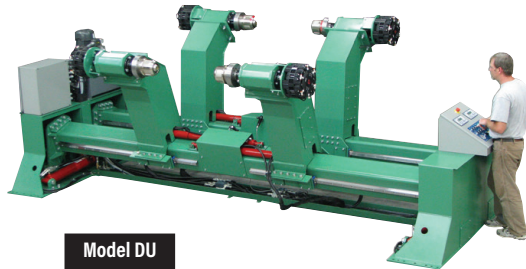
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lifting and bending, essentially allowing rolls to reach the conveyor without any operator contact.

Auto web taping – This reduces operator involvement for inside web taping, outside roll taping, label application to tail-tie rolls and end-of-roll warning tapers.

Automated setup – There are several ways to automate setup in order to avoid unintended errors and provide time savings. This includes unwind roll auto-centering, web guide positioning, auto lock rewind tooling, dual-durometer lay-on capabilities and cantilevered rewinds to eliminate shaft handling.

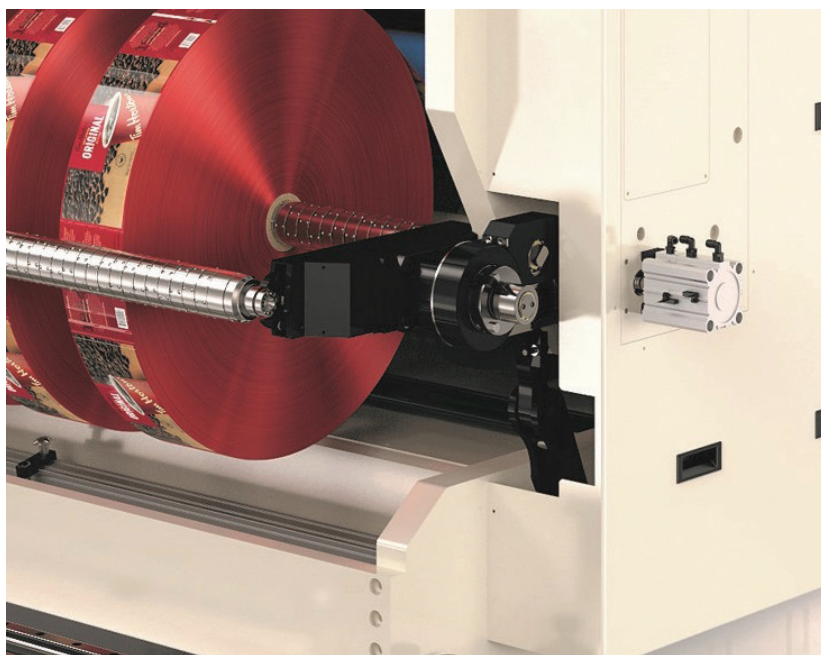
Auto roll packaging – By using robotic arms to automate the labeling, weighing, wrapping/bagging and pallet wrapping processes, manual labor is not necessary to package finished rolls.

Industry 4.0 – To support operator education and productivity, consider using a cloud-based platform such as DS Activ-Check™ to take advantage of remote technology support, data acquisition, third-party data interfacing, remote communication, tension monitoring, warning notifications and more.

Early notification of potential failures, accumulating valuable data for process improvement and using configurable dashboards are the way of the future. Here are a few examples that contribute to consistent roll quality, regardless of operator experience level:

Tension mapping assists maintenance staff in identifying changes in tensions from wear, allows verification of tensions throughout roll buildup and uses a feedback loop for auto-correction.

Database file management acts as a training aid for new oper-



T800 Outboard Shaft Supports.

ators. Operational parameters can be saved for easy recall, repeatable processing and consistent rewind quality.

What steps should processors take to add automation and get the most out of existing machinery and operator resources? The good news is, upgrades on existing equipment are readily available, and we can do a machinery performance audit to determine the most feasible approach. Some or all of the automated options mentioned here can be evaluated to see what is best for your operation and budget. In addition to machinery automation, any concerns you may have about operator safety protocols can be addressed.

This includes items such as adding safety fencing with access gates, non-physical barriers using PLS safety scanners, light curtains as required by application, programmable safety circuits and

safe speed operator access during setup. I also recommend regular, preventative maintenance and equipment care for best results.

Based on the number of high-growth markets that require slitter rewind technology, investing in automation is a worthwhile endeavor in terms of labor, time and safety. Do not hesitate to see how automation can make a difference in your overall efficiency. ■

ABOUT THE AUTHOR

Keith Hamilton has more than two decades experience with Deacro Industries Ltd., a leader in the manufacturing of quality, high-performance slitting and rewinding machines. To learn more about using automation to increase efficiency, visit <https://davis-standard.com/contact/>.

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The Pros and Cons of Flexo vs. Gravure Printing

By Ben Starr, Technical Support Specialist, Luminite Products Corporation

Packaging is important in today's world, as customers expect a certain experience when a product is shipped to their doorstep. Even the products packaged for sale on a store shelf are required to deliver a certain impression. Both flexo and gravure printing are reliable forms of product marking. However, each has its own benefits and downsides.

From print run length to color radiance, the printing method you choose can make a difference in cost and final product quality.

Advanced Printing Methods: Flexo vs. Gravure

Commercial printing relies on a variety of technologies to print on different substrates, but two of the more popular techniques are

flexographic printing and gravure printing.

Both technologies involve the creation of printing sleeves, cylinders and plates, and both can perform long-run, high-volume printing — though flexo can be cost-effective for shorter runs. Finally, both are able to produce exceptional results.

Below, we dive into the basics of each type of printing, then call out differences that are noteworthy.

Basics of Flexo Printing

Flexo typically utilizes a polymer or elastomer image carrier. This could be a:

- Sleeve
- Cylinder
- Plate

The image carrier is engraved to create the raised design of the final desired print. Ink is then transferred from the inkwell via an anilox roller onto the image carrier, where it is then printed onto the substrate.

Flexo printing is more commonly associated with uses in flexible plastics and other non-porous materials such as film, labels, foil and other packaging. The ability to control and repeat the process for images printed using flexo is part of the appeal of this printing process.

Flexo is also noted for producing an exemplary print with fine lines and text detail.

Basics of Gravure Printing

The rotogravure printing process (commonly shortened to gravure)

FLEXO PRINTING vs. GRAVURE PRINTING

THE BASICS

Flexo Printing

Flexo typically utilizes a **polymer or elastomer image carrier**. This could be a sleeve, a cylinder, or a plate.

The image carrier is engraved to create the raised design of the final print. Ink is transferred via an anilox roller onto the image carrier, where it is printed onto the substrate.

Flexo printing is commonly associated with uses in plastics and other non-porous materials, and is noted for producing exemplary print with fine line and text detail.

Gravure Printing

The rotogravure printing process (commonly shortened to gravure) is a method of intaglio printing.

Gravure printing works by applying ink to a substrate with a **metal plate**, typically mounted onto a cylinder. This plate is often made of copper or chrome.

The intended print design is typically laser etched into said metal plate, a process that often delivers high quality and precise results with good repeatability.

THE KEY DIFFERENCES

Cost & Lead Time

Gravure image carriers are typically much more expensive than flexo image carriers. However, with cylinders that require less frequent changing, gravure offers longer press run times.

Gravure lead time is usually 3-4 times that of flexo.

Substrates

Gravure printing is generally **better suited for porous substrates**, making it a great choice for high detail printing on applications like magazine covers.

Flexo is able to print on both porous and non-porous substrates, making the technology ideal for everything from film to paperboard.

Inks

Gravure printing problems include a limited number of inks with which it's compatible. *In most cases, flexo printing ink is the superior choice* due to the ease of printing with a wider variety of inks.

Environmental Considerations

Due to the fact that gravure is traditionally associated with solvent based inks (although water based ink capabilities have been evolving), *flexo is commonly considered the "greener" options.*

Quality

Gravure was once considered best for fine detail and tonal work, but flexo technology is further enabling prints with higher resolution and detail as it evolves -- enabling it to move into print jobs that were previously associated exclusively with gravure.

is a method of intaglio printing. Gravure printing works by applying ink to a substrate with the use of a **metal plate** that is typically mounted onto a cylinder. This plate is often made of copper or chrome.

The image or text that is intended for printing is typically laser etched into said metal plate, a process that often delivers high quality and precise results with good repeatability.

The gravure printing process also involves the transfer of the ink to the substrate from the depressions in the engraved surface. A blade removes excess ink prior to contact with the substrate. Meanwhile, an impression cylinder on the back side of the substrate forces contact with the depressed, ink-filled regions of the gravure roll.

The use of the impression cylinder increases color vibrancy in the print, which is another appeal of using this type of printing. The gravure press may include many in-line stations, each for a different color of ink. Additional stations may also be part of the process, which apply cold seal or barrier emulsions.

Flexo Printing vs. Gravure Printing: Where Differences Are Noted

Gravure — Gravure image carriers are more expensive, making the number of prints required to break even much higher. Also, the lead time is three-four times that of flexo.

Gravure is better suited for printing on porous substrates and is considered ideal for high-detail printing on applications such as magazine covers. It has also been used in industrial-scale applica-

Several factors, including sustainability, cost, ink type and more need to be considered before choosing between flexo and gravure printing.

tions involving printed electronics. However, this type of printing has a limit to the number of inks that are compatible and also requires more ink per print — which can drive up the cost of printing.

A type of printing traditionally associated with solvent-based inks, gravure printing could be considered less eco-friendly than a printing process that utilizes water-soluble inks (although the capabilities of these inks have been evolving and may be used in the future). The cost of printing can also be higher with gravure printing, due to the amount of ink required per print, although this is not always the case.

Gravure printing was once considered best for fine detail and tonal work, but flexo technology is further enabling prints with higher resolution and detail as it evolves — enabling it to move into print jobs that were previously associated exclusively with gravure.

Flexo — Flexo printing has a much shorter lead time than gravure, which requires less frequent changing of the cylinder. The print run time for gravure is longer as well.

Flexo is able to print on both porous and non-porous substrates, making the technology ideal for everything from film to paper-

board. When it comes to ink, flexo printing is the superior choice due to the ease of printing with a wider variety of inks.

Flexo is also commonly considered the “greener” option. There are generally more flexo printing solutions for VOC (volatile organic compound) problems, and the press operations are associated with more environmentally friendly practices.

Flexo or Gravure: The Final Decision

Several factors, including sustainability, cost, ink type and more need to be considered before choosing between flexo and gravure printing. Your decision should be based on internal decisions mixed with outside consultations from your preferred printing house.

It's important to consult a trusted print house before making your final decision to ensure you will be getting the best prints possible. ■

ABOUT THE AUTHOR

Resident Technical Support Specialist at Luminite Products Corporation, Ben Starr supports clients toward challenging printing applications, defects or press issues with his advanced knowledge of the flexographic printing industry. Family-owned and operated since 1926, Luminite Product Corporation offers the original continuous print solution, as well as direct laser-engraved elastomer sleeves, cylinders and plates for the flexographic printing industry.

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Glue Tabs: Failures?

By **Ralph Young**, Principal, Alternative Paper Solutions



Ralph Young serves as the Technical Advisor to the AICC, The Independent Packaging Association. He spent his entire corporate career in the forest products industry, investing the last 38 years in the paper and corrugated packaging segment. Contact Ralph at ask-ralph@aiccbox.org.

In almost 40 years in the containerboard and corrugated industry, I have never heard of a box failure due to the manufacturer's joint that was properly die cut and had 100 percent adhesive coverage.

However, when someone posed the question why brokers would require different-width glue tabs for different-size boxes without asking for the actual numeric strength value of a typical 1¼ glue tab, our research began. Now we are looking for data that supports carton strength relative to size along with inside or outside flap.

High-speed camera inspection systems today can monitor each box for glue patterns and skew or fishtailing of the glue tab, and reject any box that is not in compliance, but that may not be enough.

TAPPI TM 813, Tensile Test for the Manufacturer's Joint of Fiberboard Shipping Containers, has not renewed the review process, maybe because of a lack of significance to CORTOBEC committee members who vote on the renewal of test methods every five years. As a side note, TAPPI test methods for containerboard and corrugated

properties range from numbers 400-570. That's a lot!

Score line quality, including width and depth, can play a factor. And yes, medium strength can play a part in the pin adhesion strength with the glue tab liner.

Scott ply bond, Cobb absorbency, smoothness, roughness and porosity measure surface and internal characteristics of the linerboard and will be evaluated in this trial. All these are standard TAPPI test methods and are repeatable from one lab to another.

In a literature search, I discovered a study that answered a question I have had for years: What is the strongest glue tab method: cold-set adhesive, hot melt, staples or tape? Here is what was reported in pounds per inch per tensile:

Cold set adhesive: 127#

Hot melt adhesive: 109#

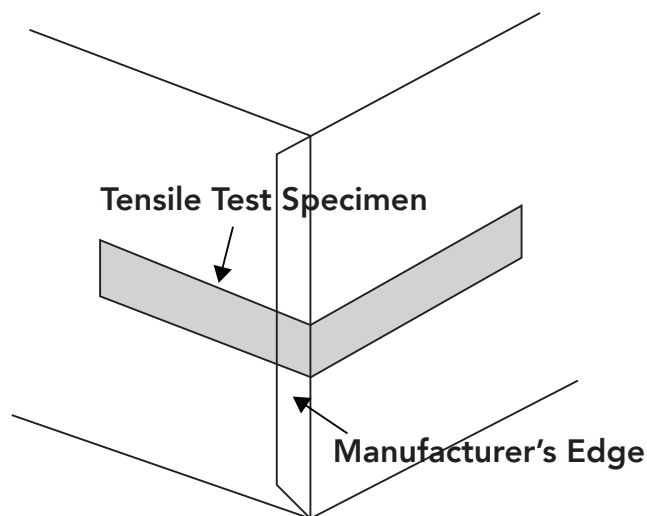
Tape: 53#

Stitch/staples: 26#

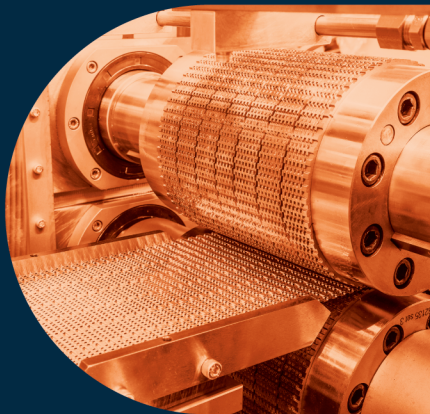
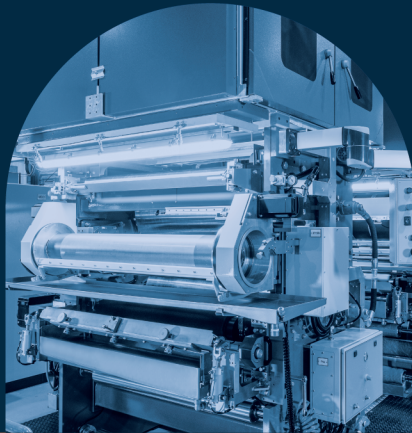
What was also reported from the study was that "the compression strength of the box is largely unaffected by the type of joint produced." Now, don't shoot the messenger. I am only bringing forward what others have discovered. The question remains: Can we increase box compression and supply chain endurance by widening the glue tab beyond the required minimum width of 1¼ inches as mandated in Rule 41/Item 222?

At least one independent converter is required by various brokers to provide glue tab widths up to 3 inches, all without any quantitative proof that that extra material adds to box performance. We will see when the results are in from university research.

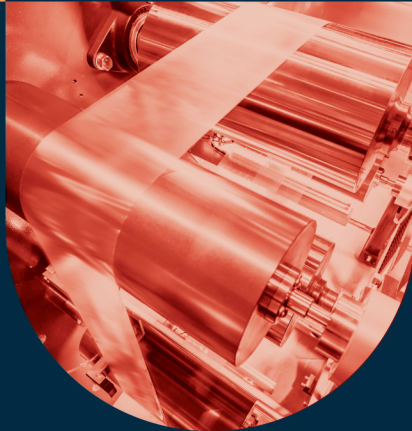
The literature search further revealed only a few additional studies: The first in modern times goes back to 1970, when Owens Illinois was a major box producer. Another was a European study done on mottle white (yes, before white top) in 1978



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and another one by Jay Singh at Cal Poly in 2018.

Linerboard has changed significantly since 1978, especially with the introduction of CD ring or SCT as a highly critical variable leading to box compression and stacking strength. But the glue tab testing protocols employed then are still valid today.

Cal Poly was chosen to partner with us on this project and conversations with other highly respected testing facilities focused on corrugated: Advanced Packaging Technology Labs and Applied Paper Technology.

Valco Melton has had two articles published in *Corrugated Today*, the oldest piece going back to 2009. Harper Love had

If you would like to join in this study or expand upon it in any way, please contact us. If you have any working hands-on awareness of premature failures, please let us know ...

also been a regular contributor to *Corrugated Today* on starch and adhesives. Dick Target's column in each issue covered a multitude of topics focused on corrugated manufacturing and printing. As an industry, we are at a loss because of the technical knowledge and product information shared in

each issue of that publication.

As you read this article, we should be deep into the testing. If you would like to join in this study or expand upon it in any way, please contact us. If you have any working hands-on awareness of premature failures, please let us know; we could use your input as we build the designed experiment for evaluation of cold adhesive glue tab strengths. Certainly, the findings are not just for independent packaging members but for the entire corrugated industry. How else may we serve you? ■

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A More Strategic and Inclusive AIMCAL

By **Chris Kerscher**, Executive Director

During my time as executive director, the team and I identified some areas that required attention. What is AIMCAL's priority? What do our members find most advantageous, and what could they do without? As an organization, what offerings make AIMCAL what it is? And on that note, how do we define ourselves as an organization?

These are all big questions, and I've spent the better part of the last three years assessing the situation and writing a strategic plan that will position AIMCAL as the "top-of-mind" resource for all members of the roll-to-roll converting industry.

Still, being a resource is only the foundation. We must be able to easily communicate our services to recruit new members and build our community. For this reason, we've had many discussions regarding AIM-



CAL's name and brand. When introducing AIMCAL to potential members, we often find ourselves explaining the name behind the acronym and that the association includes members beyond the metallizing, coating

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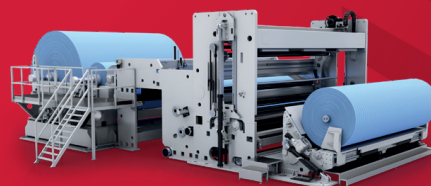
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Along with the name change comes a rebranding that will honor our history and heritage while adding design elements to better represent what AIMCAL is all about: educating our members, connecting them with each other and helping them to grow their businesses.

and laminating industries. This discussion is a serious boundary when introducing the membership to a potential member, as it begins the entire conversation with an attempt to explain rather than discussing why the person or company would benefit from membership.

For the sake of clarity, as well as to signify this more focused, intentional direction, the AIMCAL team and Board of Directors have decided to rename the organization. We believe that this will open up

opportunities to be more inclusive and, in turn, allow us to more easily recruit new members.

Along with the name change comes a rebranding that will honor our history and heritage while adding design elements to better represent what AIMCAL is all about: educating our members, connecting them with each other and helping them to grow their businesses.

We look forward to sharing these updates with you and are excited about the next steps. The reveal of the new name and brand at the R2R USA Conference in Orlando on September 26, 2022, showed what's next for AIMCAL. Check out the recap at www.aimcal.org.

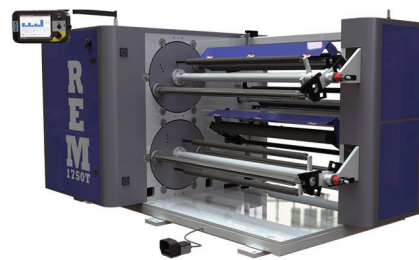
Access Online "Gravure Basics" Course on AIMCAL Website

The Gravure Basics course familiarizes those new to the gravure industry with the terms and components used in the gravure process. The online course is available 24/7 and consists of 13 videos (8.5 hours), 12 quizzes and 14 downloads.

Presented by gravure industry experts, each video is

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preceded by a downloadable PDF file of the PowerPoint slides for the presentation. The first video, an overview of the gravure process and industry, contains information that is explained in more detail in subsequent topic-specific videos.

The quizzes help reinforce the information presented, and a Certificate of Completion is available for download after all course elements have been completed. This course along with the Gravure textbooks are available at www.aimcal.org (click on "Resources," then "Products").



R2R USA Honors First WISE Recipient, Applications Open for 2023

The first recipient of the AIMCAL Women in Industry Scholarship for Excellence (WISE) was honored at the AIMCAL R2R USA Conference last month in Orlando, Florida. Learn about her at www.aimcal.org.

Applications are now open for 2023. The application form is available at www.aimcal.org (click on "Resources," then "Scholarship"). The submission deadline is August 1, 2023.

The WISE is awarded to women already working in the roll-to-roll converting industry and is intended to commend those who have overcome significant challenges, invested in STEM degrees and continue to make important contributions to the industry. Recipients receive funds to pay down student debt.

More donations are needed to fund an endowment for the WISE program to ensure women working in the web-converting field continue to receive aid. A goal of \$100,000 has been set, with a Fall 2023 deadline. Levels of support include Diamond Sponsor (\$10,000+), Gold Sponsor (\$5,000), Silver Sponsor (\$1,000) and Friends of the AIMCAL Scholarship Fund (any amount from individuals or businesses).

AIMCAL member and non-member companies

and individuals are welcome to participate. Sponsors receive recognition via the AIMCAL website, social media posts and a scholarship sponsor plaque. Current sponsors include Davis-Standard, LLC; Celplast Metallized Products; Nordmeccanica Group; Intellivation LLC; and Mahlo America, Inc.

For more information about the WISE or the AIMCAL Women's Leadership Committee, contact 803-948-9470 or aimcal@aimcal.org.

Join Now and Receive Pro-rated Pricing through End of Year

Apply now for AIMCAL membership and all your co-workers will gain access to an extensive array of member resources for the remainder of 2022. Prices are pro-rated for new members (if your company was not a member in 2021).

Membership offers both corporate and individual benefits by opening access to an array of marketing, educational and networking opportunities as well as discount pricing for events. Learn about member benefits

at www.aimcal.org (click on "Membership") or contact Tim Janes, AIMCAL member outreach director, at 803-948-9469 or tim@aimcal.org.

Hybrid Online Converting School Course Scheduled for October

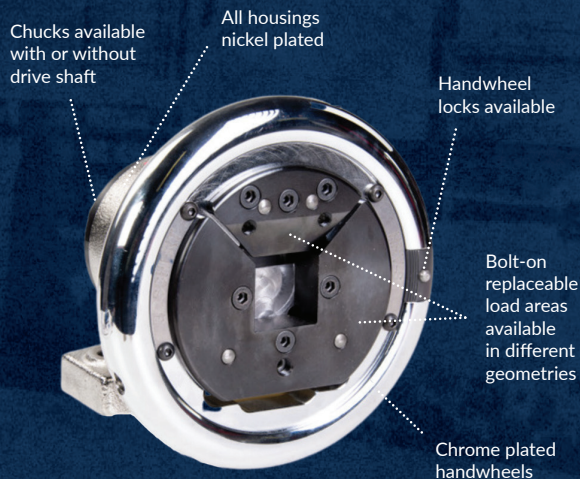
AIMCAL Hybrid Converting School courses return with Web Winding Month (October 3-28, 2022), taught by Dr. David Roisum of Finishing Technologies, Inc. Online courses are recorded and you can catch up if you join after the first week.

The course features presentations that may be viewed on-demand during the week plus a live Q&A session with Dr. Roisum each Friday. On the final Friday, participants may schedule private one-on-one meetings with Dr. Roisum.

The cost per person is \$699 for AIMCAL members and \$899 for non-members. Attendees who meet all course requirements receive a Certificate of Completion. To register, visit www.aimcal.org (click on "Education," then "Courses"). ■

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Discovering the Correct Covering and Coating

By William R. Bradley Jr., Vice President, Business Development, American Roller Company

For over 25 years I have had the honor to work with hundreds of companies and thousands of people optimizing roller coverings or coatings used in their process. Discovering the correct covering or coating for each customer is always exciting, and it usually starts with one area to improve. Generally, this area is the bottleneck for their manufacturing process responsible for product quality, line speed, and higher maintenance or downtime costs.

In these applications, the surface of one roller can present limitations many manufacturers are forced to accept, usually effecting the most critical parts of their process. Key factors include

(but are not limited to) product adhesion, alignment, tension, static, and surface treatment. There are multiple ways to address these challenges, but often roller surface improvement in direct contact with the finished product brings the most benefits.

With applications requiring an elastomeric or rubber covering the stakes are raised, as this roller surface has limited life and performance vs, chrome, ceramics, or hardened steel. These coverings are vital for coating, laminating, embossing, or high nip applications to produce an optimal final product. Rubber coverings are temporary, and generally have a predictable lifespan unless a catastrophic event

damages the surface (i.e., web wrap up, excessive pressure, etc.). Today's latest technology in compound development is bringing new and exciting rubber covering options to the market, improving durability, chemical resistance, and electrical conductivity. Challenge your roll covering supplier on what new solutions do they have to offer? Do they formulate the coverings they supply in-house, or do they rely on an outsourced vendor for an off the shelf commodity product? How do they control their process insuring consistency with their coverings? All great questions to determine if you are using the best rubber roller surface for your critical application! ■

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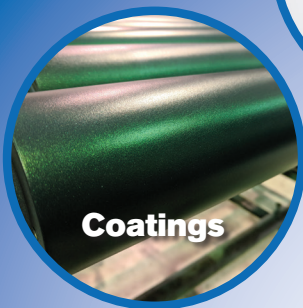
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