



96th
ANNIVERSARY

DECEMBER 2023

TREATING YOUR BUSINESS WITH CORONA 8

ALSO IN THIS ISSUE

POUCHES 101 10

STATIC AND STATIC CONTROLS IN PRINTING 12

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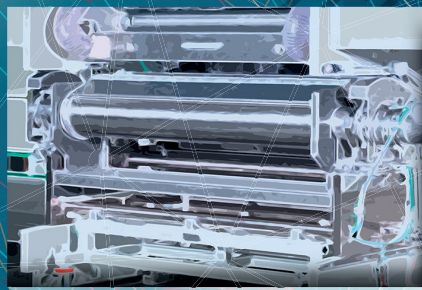
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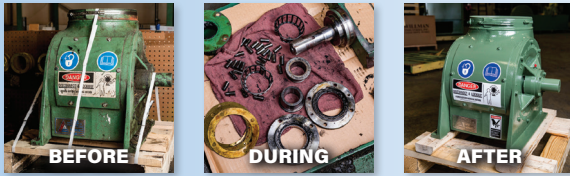
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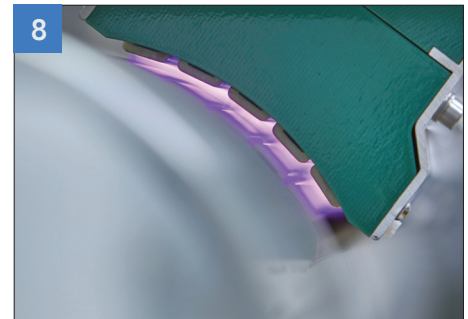


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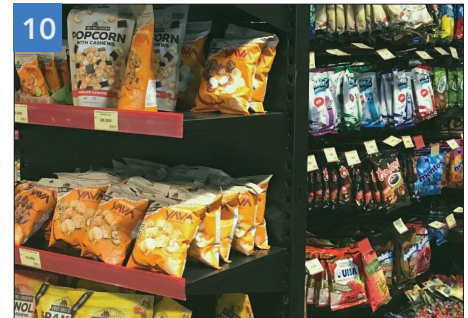
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What's in Store in '24



Angel Morris
Editor

While I hope December allows you to focus on faith, family and friends, we can't help but begin to look toward 2024. For more than 96 years, *PFFC* has shared resources for converters and package printers and, in January, the magazine's **Leaders in Converting** program will provide a platform where suppliers and manufacturers can assert their expertise and communicate solutions for the industry. Look for Leaders in Converting content on our website throughout the year and for detailed content in next month's issue where you will find top industry problem solvers.

Also coming in January 2024 is The International Converting Exhibition and Conference – better known as ICEC USA. Registration continues for the January 9-11 event happening in Orlando, Florida, where buyers, suppliers and manufacturers attend hands-on demonstrations, test full-scale equipment, see machines in action and visit with global vendors on the ICEC USE show floor. From automotive and aviation to packaging and printing, there is something for everyone, and more details can be found in this issue. Also in this edition, we preview events being hosted by the Association for Roll-to-Roll Converters (ARC) next year, including live and online converting school courses and the R2R USA Conference.

As always, industry experts offer their knowledge within these pages — from the benefits of flexible stand-up bags and pouches to proper web handling equipment selection. How convenience impacts the customer experience is emphasized in this month's thought leadership article, too. Closing out another year of sharing the trends, challenges and changes faced by our readership, we hope *PFFC* is a gift to you in December and all year!

Angel Morris
Editor-in-Chief
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P.S. The staff of *PFFC* — *Paper, Film and Foil Converter Magazine* — wishes you the happiest of holiday seasons and a peaceful end to 2023.



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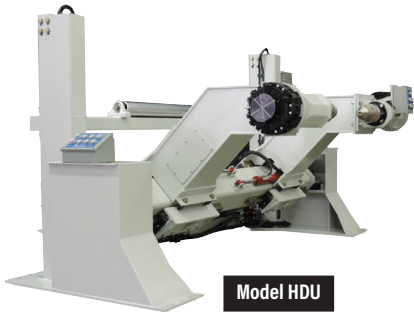
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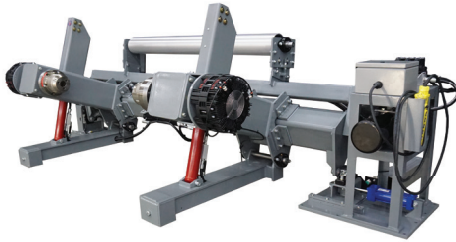
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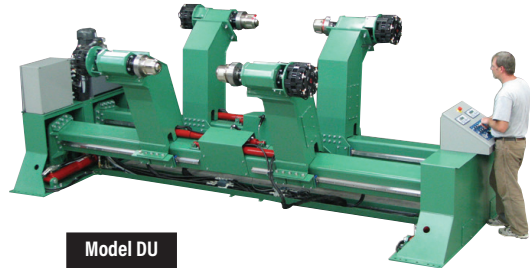
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Treating Your Business (and Your Customers) with Corona Treatment

By **Dr. Alexander Rau**, Product Manager, Baldwin Technology

Converting and flexography benefit from corona treatment to ensure premium printed quality and optimized line speeds. Increasing the surface energy of plastic films, papers and foils means that they can be printed on or coated with exactly uniform results and with great adhesion.

Advanced corona treatment is a prime example of how smart equipment upgrades offer cost-effective solutions to today's most pressing challenges: Competitive pressures, labor contraction and the shifting regulatory landscape.

Competitive Pressures

Margins are small in this competitive industry. Corona treatment is allowing traditional offset printers to grow their businesses by moving into the flexible packaging space, with in-mold labeling (IML) applications top of mind. Packaging historically printed on

flexo is migrating toward its being offset-printed.

The ability of corona treatment to increase surface tension and achieve high levels of adhesion for the new generation of eco-friendly inks offers converters and printers additional competitive advantage. The high-quality graphics required by brands for IML and other flexible packaging

applications wrest additional value from high-speed offset with optimized corona treatment systems.

Labor Contraction

The unemployment rate continues its descent, the workforce is contracting and a tsunami of skilled workers are retiring. Recruiting, training and retaining the next



Smart equipment upgrades, like advanced corona treatment, offer cost-effective solutions. Photo courtesy of Baldwin Technology

generation of workers is key. Corona treatment systems have an important role to fulfill now and in the future. The newest systems feature the easy change replacement of electrodes and rapid cleaning and removal of residues such as fiber and dust in mere seconds – with minimal technical expertise required.

The latest slate of downloadable mobile apps and simplified Human Machine Interfaces (HMI) enable easier machine operation and maintenance; complete line control can now be achieved with a few keystrokes.

Regulatory Landscape

The rapidly shifting regulatory environment – and consumer pref-

erence for more sustainably-advantaged brands and products – means that the nature of film is changing and will change further. Key components of an inclusive approach will include the inclusion of more recycled film materials or substrates that are laminated with paper. As the substrate landscape expands, Corona treatment will be even more important in order to secure unified surface quality.

From a process perspective, the latest technology removes corona treatment's ozone emissions by converting ozone into oxygen. A catalyst bed of metal oxides, with easy monitoring and replacement of filters for optimum catalyst protection, purifies the air. Good for the environment overall and for employees alike.

Conclusion

The industry is facing a trio of challenges as we head into 2024: Tight margins, labor contractions and a regulatory landscape favoring more sustainable approaches. Corona treatment is one way to literally treat your business and your customers to a scalable, ROI-friendly solution that addresses these important concerns. ■

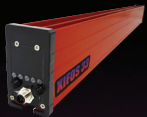
ABOUT THE AUTHOR

Dr. Alexander Rau is product manager at Baldwin Technology for corona, plasma and spray coating systems. He brings 20 years of experience in understanding surface technology for plastic, metal and textiles.

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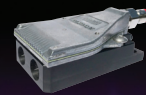
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Pouches 101

Why Organizations Should Consider Alternatives to Traditional Packaging

By **Rob Tiller**, Managing Director, PennPac

Continuing to expand in popularity, flexible stand-up bags and pouches are steadily evolving in all areas of consumable product markets (e.g., dry goods, liquids, powders). Having a strong foothold in the food industry, pouches are becoming a new retail standard. With high demand for packaged food products these days, pouches have aided in significant logistical efficiency gains by changing the way we pack our semi-trailers. Essentially, allowing for more product per delivery due to a pouches' space-saving design feature(s).

With many pouch design variations made from materials like aluminum or multiple plastic layers such as polypropylene or polyethylene, the typical stand-up bag or pouch is far more complex than what a consumer sees, regardless of what's inside. From logistical motives, to freshness concerns, to sustainability, the use of such packaging techniques is rapidly advancing across the globe.

Why is this, consumers might ask? Well, stand-up bags and pouches are replacing traditional packaging for many reasons. This article will touch on just a few of the many topics surrounding the baseline reasoning for such a rapid departure from the traditional methods in food packaging.

Benefits

Here's an example many consumers can relate to — grab the

recently purchased, sealed box of your favorite cookies or crackers out of the cupboard, eat a serving and then return to the cupboard until your next craving. Two to three days later, they just aren't the same, right?

A significant advantage of the stand-up bag or pouch is their well-engineered ability to keep food fresh for longer periods of time, even after being opened. Comprised of multiple layers

of films laminated together, the barrier properties of pouches are far superior compared to traditional packaging designs. Add a resealable closure at the top and your favorite cracker or cookie is ready for multiple servings, in and out of the home. Pouches are designed specifically with re-use in mind, allowing the old-fashioned bag in a box to become a thing of the past.

What's more, the pouch minimizes both product and



The benefits of stand-up pouches are stacking up against the competition. Photo courtesy of PennPac.

packaging damage (mostly from transportation handling) as well. Although crushed or torn boxes of cereal or crackers are still stocked on shelves, consumers are reluctant to place these in the cart. More often than not, many consumers reach past the ripped box, seen as defective, for a damage-free one. The pouch design decreases this activity, reducing the amount of no-sale food items.

Many brands continue to successfully maintain their old-fashioned image and are hesitant to transition to a modernized pouch. Eco-friendly pressures will continue to influence and encourage change to more sustainable solutions. More and more companies are utilizing recycled materials in their packaging and marketing them to the public in a way that brings awareness to a more sustainable trade. Incorporating some Post-Industrial Material (pre-consumer material) in a pouch structure is a major marketing scheme that many manufacturing teams are deploying.

Pouches on the Go

In addition to being engineered

to take food freshness to another level, pouches have inherent features that allow for versatility in when and where they can be consumed. Traditionally, one would have to open a large outer package, often paperboard, to reach into a secondary package containing the food product. These days, snacking “on the go” is easier than ever. The resealable pouch is now the primary package. Being lightweight and utilizing less space in your backpack, desk drawer or vehicle console, they can be consumed virtually anywhere with ease.

The bottom gusset allows the food product to stand upright without any support from surrounding objects. Some pouches are even designed with a built-in handle to make them easier to carry around. For liquids or powders, many pouches have incorporated a built-in spout to allow for an easy pour. The next time you are enjoying a product that is packed in a pouch, take a moment to study the features engineered to make it more enjoyable!

The list of benefits goes on and on, most in favor of the stand-up pouch. Like anything,

debate will always exist challenging which packaging methods are more economical, safe and aesthetically pleasing. However, one thing is for certain, engineering teams across many consumer markets are considering how a pouch may be beneficial to their organization, customer base, environment and bottom line. With pouches offering an all-in-one solution, cost savings and environmental impact are exponential.

If your organization is considering a pouch design, reach out to your film supplier of choice to discuss which barrier films will be your best fit for the application. ■

ABOUT THE AUTHOR

As Managing Director, Rob Tiller is flanked by a committed team with decades of flexible packaging film expertise. Together, they work to provide PennPac’s customers and associates with a friendly and reliable experience. Converters and End-Users across North America trust PennPac’s accommodating warehousing, custom slitting/re-winding and film solutions.

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Static and Static Controls in Printing

By **Terrance Clark**, National Technical Sales Manager, TAKK Industries Inc.

The negative effects of static in printing operations can result in serious consequences if not managed correctly. Static electricity charges can cause issues with print quality and volume of output. As the demand for faster production speeds and higher quality output continues to rise, it is imperative that printers have effective methods for combating static.

Theory of Electro-Static Charges

The generation of static electricity has long been thought to be purely a frictional phenomenon.

However, the words “Contact” and “Separation” may more accurately describe the mechanism by which static is generated.

When two uncharged materials are placed or pressed into intimate *contact* with each other, the surface electrons of each material at the points of *contact* tend to mix with each other, and to assume a different arrangement than they normally possess in the individual materials. If the two materials are then *separated* rapidly by sliding one on the other, or pulling one off the other, the displaced electrons have difficulty redistributing themselves into their normal arrange-

ment. This is particularly true when one or both materials are insulators or poor conductors of electricity. This separation will leave one of the materials positively charged and the other negatively charged.

There is the old axiom of electrostatics: “Like charges repel; opposite charges attract.” Knowing this, we can see why some static charged piles of paper seem to float in a jogger of a printing press, and why some act as if the sheets were glued together.

Static in printing operations can be caused by a variety of factors, which can make it a difficult problem to manage. Changes in humidity, substrate types, process speed and related factors can cause static to flare up unexpectedly. When combined with the basic causes of friction and pressure, it is understandable why controlling static in printing can be a challenging task.

In the printing field particularly, material types can also affect static issues. The substrates moisture content and ambient humidity also play a crucial role in static buildup. As sheets or webs are fed through a Converting or Printing process, friction between the rollers and different types of substrates can generate significant amounts of electrostatic energy. There are a number of variables that can contribute to generation of static electricity and the costly troubles static can cause printers and converters.



Implementing instruments for controlling static electricity can improve overall productivity and quality of printed materials. Photo courtesy of TAKK Industries Inc.



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How to Test for Static

A handheld static meter is an ideal tool to measure the strength of a static field for problem-solving purposes. A static meter will measure the voltage levels and polarity on different parts of the printing press, such as rollers and sheets. This will help identify areas where static is building up and be a guide in finding the best solutions to mitigate it.

There are many different operating tests for static, however, that can be used in the field which will, in most cases, provide sufficient information to evaluate static problems in the printing industry. For example, on the delivery pile, when one sheet is lifted slightly at the edge and then pulled away from the pile, if there is static present, the second and third and fourth sheets will tend to drag off the pile with the first sheet. When static is not present, however, the first sheet will pull off easily and cleanly without any pull against the lower sheets.

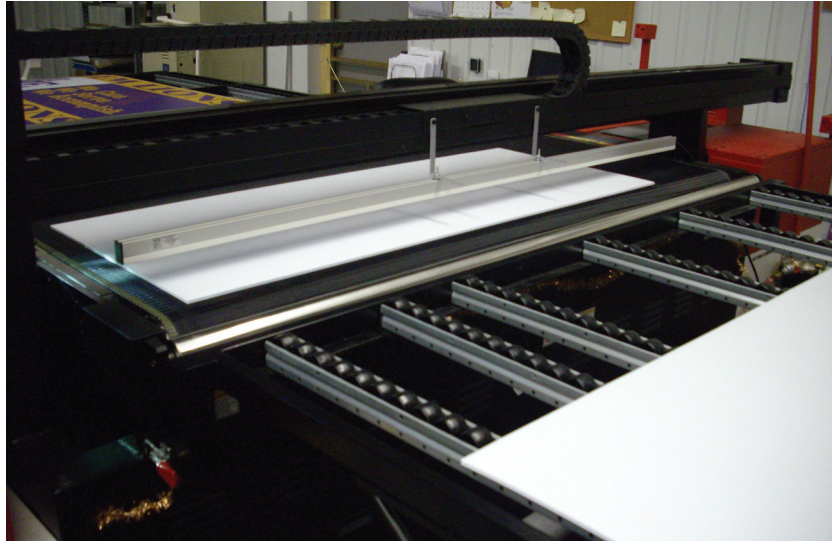
Trouble Caused by Static

The impact of static in printing operations is significant in both the print quality and productivity.

Printing Press

Poor Feed & Register: On printing presses, static frequently causes trouble on the feeder. Static attraction between the sheets will cause the feeder to pick up two sheets at one time rather than a single sheet. It can also cause trouble as the sheet of paper moves down the feed board — it may be attracted to the press, causing the sheet to turn slightly sideways. This gives either poor register or trips the stopping mechanism on the press and stops the press.

Poor Jogging: Static can cause printed sheets to stick



Static controls not only increase efficiency, but also maximize profits. Photo courtesy of TAKK Industries Inc.

together, making it difficult for the jogger to properly align and separate them. This can lead to uneven edges and inconsistencies in the final printed product.

Excessive Offset: The attraction of one sheet of paper to the next, caused by a static charge, may be the underlying reason for excessive offset conditions. If static conditions are present, even though the other factors such as paper and ink are satisfactory, offsetting may still occur and be entirely beyond the power of the press operator to eliminate except by slowing down the press.

Slow Drying: Static conditions on the delivery pile will seriously slow drying of the printed sheet. The normal air “cushion” between each sheet when static is not present, is squeezed out when static conditions attract one sheet to the next. This reduces the air space between the sheets and slows evaporation. This slowed drying process can result in smudging, streaking or even complete adherence of sheets to one another.

Tracking: Tracking of the ink

on the printed sheet occurs when static is present on the sheet and light or volatile inks are used. In this case, the ink fans out from the impression in the form of tiny feathers or crow’s feet.

Dust Attraction: The paper dust resulting from slitting, cutting or trimming operations may be attracted to the sheet when static is present.

Folders

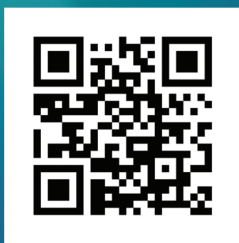
In addition to static troubles on presses, static control equipment is frequently necessary to properly operate folding machines. In this case the paper may come from the presses loaded with static which of course causes trouble on the feeder. More frequently, however, static builds up on the sheet going through the first fold to such an extent that the sheet sticks after coming out of the first fold and will not go properly into the second fold. Trouble is also experienced in the final delivery with the folded sheet being attracted to the next sheet and sticking together to give poor jogging.



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Sheeters

Static conditions frequently cause major quality or production issues on paper sheeters. As the sheeters frequently cut multiple rolls of paper at a time, and then use over-riding tapers on the lay-boy, so many sheets are pushed into the delivery box at one time. Static causes trouble at the cutting knife and as the different layers of paper are sliding on the over-riding tapes.

What Static Issues Cost the Printer

Static electricity has long been an issue in the printing industry, causing decreased production volume and quality. However, this problem is often dismissed as being a normal part of the printing process.

Implementing effective instruments for controlling static electricity can greatly improve the overall productivity and quality of printed materials. This includes reducing runnability issues, such as paper jams and misfeeds, improving ink transfer and color consistency, and minimizing dust attraction that can affect print quality.

Methods of Combating Static

There are several methods for combating static in printing operations. These methods are of varying effectiveness and popularity. All methods discussed below are effective to some extent in the control of static electricity. The type of application and the degree

of static present will direct the best method for static control.

Preconditioning: Preconditioning involves treating the materials before they enter the printing process, using chemicals or conditioning agents that reduce the build-up of static. These chemicals can be applied through various methods such as spraying, dip coating or misting.

Humidification: Dry air can increase the build-up of static, therefore maintaining proper levels of humidity can help reduce it. This can be achieved with humidifiers or steamers.

Anti-Static Chemicals: Anti-static chemicals supplied in aerosol cans, pump bottles or in bulk, can be dipped, wiped or sprayed. The chemical's purpose

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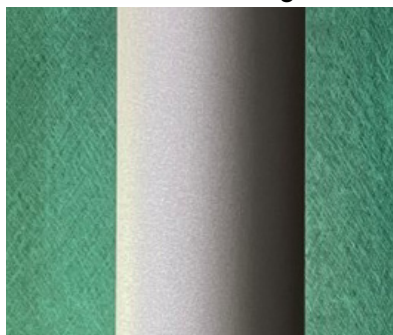
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is to allow the treated surfaces to attract and absorb moisture from the air, forming a thin layer that is static electrically conductive. Anti-static chemicals are commonly used as a stop-gap measure where only occasional static problems arise or where other conventional static eliminators are not feasible.

Ionization: The most widely used method of static control is ionization. Ionization is the process by which air molecules are broken down into ions of both positive and negative charges. The generated positive and/or negative ions interact with a static laden surface to reduce the static charge by returning the static charges to near electrical balance. Ionization for the purpose of static elimination is typically achieved by using

the following methods:

Induction Ionization

Ionization through induction involves bringing electrically grounded sharp metal points, usually made of copper, brass or conductive filaments close to a moving static-laden surface. An interaction between the electrostatic field and the sharp end of the conductive points, initiates and maintains an ionization process in the surrounding air, thus acting to reduce the static charges. The most common induction ionizers are copper static eliminating tinsel, anti-static brushes or cords.

The three most evident limitations of induction type devices are:

- 1) The device must be kept in close, usually within 1/4-inch, to the static-laden surface to

be most effective.

- 2) The inductive device requires a threshold voltage (approximately 2000 volts) to maintain the ionization process. Below this threshold voltage the induction device will cease to function and, thus, will not reduce the static charge below this point.
- 3) Dust, ink and similar contaminants require Induction ionizers to be replaced periodically.

On the other hand, induction devices are a low-cost method of static elimination and can benefit some applications.

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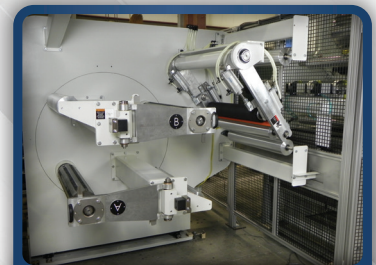
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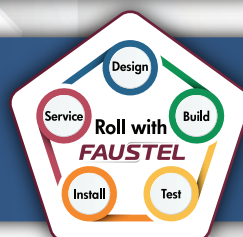


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ization is achieved by impressing high voltage on the sharp points of one or more emitters close to the electrically grounded targets. Because of the difference in electrical potential between the emitter and grounded targets, the air surrounding the emitters breaks down into both positive and negative ions.

One criterion for evaluating the capabilities of an electrical static eliminator is its ionization range. (The distance from the emitters to the static laden surface). The longer the ionization range, the higher the output of the static eliminator.

There are several types of electrically powered static eliminators, such as Static Eliminating Bars, Ionizing Air Guns, Air Nozzles and Static Eliminating Blow-

ers, available in a wide variety of sizes, power levels and ranges. The availability of a multitude of static eliminator devices enables users to select the exact device needed to suit a larger or smaller area, to neutralize static from a greater or lesser distance, or to overcome mounting/installation difficulties.

Static eliminators are powered by AC or DC current. The decision to choose between AC and DC ionizers depends on factors such as the application, environmental conditions and cost. AC ionizers are typically used for more economical neutralization of static charges. DC ionizers generally offer higher static control capabilities, range and/or connectivity to machine controls like PLC or HMI's.

In Conclusion

Uncontrolled static electricity has been, and is, a costly problem in the printing industry. There are many effective methods of static control that can be implemented. By doing so, not only can production quality and efficiency be improved, but profits can also be maximized. ■

ABOUT THE AUTHOR

The article is a TAKK Industries publication, revised by Terrance Clark for PFFC.

With more than 24 years of experience in the static control industry, Terrance lends his expertise in identifying the best solutions for each client's specific static elimination and static pinning applications.

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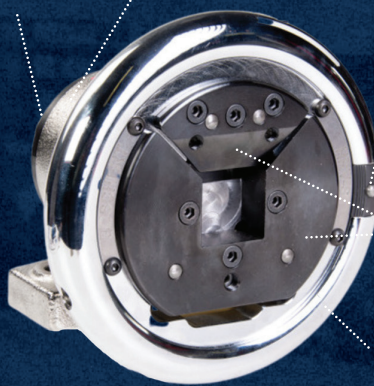
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PART 2 OF 2:

Selecting the Proper Web Handling Equipment

By **Bob Pasquale**, President New Era Converting Machinery

Here we pick up on a discussion of the equipment sections that are required to allow for the proper handling and conveying of the web from section to section. Last month, we addressed tension control of the unwinding material and guiding of the web as it exits the unwind.

Splicing the Expiring Roll Onto the New Roll's Web

The method of joining the end of the expiring roll's web to the beginning of the new roll's web is typically dependent on: The web materials and the process that the web is entering. To be considered are: The method of joining the webs, the type of splice to be formed.

The Method of Joining the Webs — There are several methods available to join the webs together such as: Pressure sensitive tapes or adhesives; heat and pressure activated tapes or adhesives; sewn splices; welded splices. The selection of the method of joining the webs is typically dependent on: The web material – what methods of joining the webs works with the particular web material; the process – what methods of joining the webs allow for the splice to survive the process conditions such as tension, moisture, heat.

The Type of Splice to Be



Welded Splice System



Sewn Splice System



Butt Splice System

Formed — The most common types of splices are: Lap splices – the expiring web's end overlapping the new web's leading edge; this is the easiest splice to perform; butt splices – the expiring web's end butts up against the new web's leading edge; this splice is more difficult to form, requiring more work and time to prepare/perform.

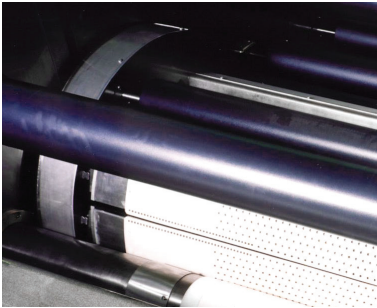
The selection of the type of splice to be formed is typically dependent on: The web material – what type of splice works with the particular web material; an



Simple Splice Table

example is a web with a liner that will later be peeled on a continuous basis, requiring a two-sided butt splice.

The process – what type of splice allows for the web to make it through the process; examples of this are conditions such as: The double thickness of web from a lap



Patented Zero Fold Over Carousel Winder



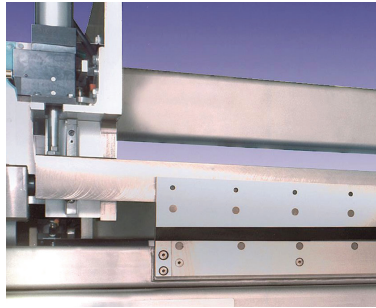
Rupture (burst) Type Cut-off and Transfer System

splice will not make it through the machine; a hanging tail from a lap splice may result in problems.

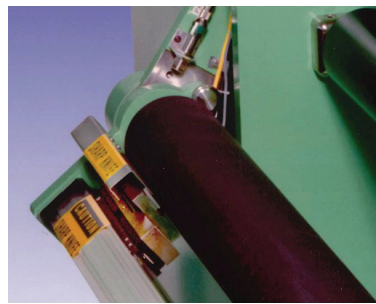
The design of the unwind should allow for the required splice to be formed. This could range from no hardware required for the operator to form a manual zero speed splice on the roll of web to the inclusion of a special splice assembly as shown on page 20.

How the Expiring Roll's Web Will be Cut

During normal operation it is typical that the end of the expiring roll's web, the beginning of the new roll's web or both need to be cut as part of the splicing procedure. Several factors dictate the method of cutting and cutting hardware required including: The web material that needs to be cut; if the web will be moving or



Flying Shear Cut-off System



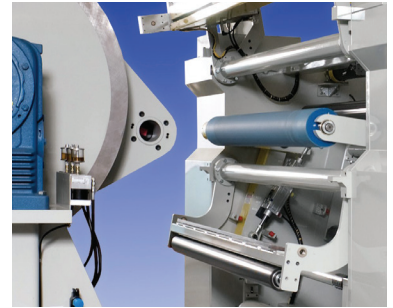
Traversing Shear Cut-off System

stationary during cutting; if the cutting will be manual or automatic.

Manual System — For some applications cutting of the web may be a simple task, performed manually by an operator using a handheld knife or scissors. Advantages: Extremely inexpensive equipment. Disadvantages: Safety is a concern; web must be stopped.

Automated System — An automated cutting assembly can be integrated into the unwind system. The design of the assembly can vary greatly as shown in the examples above.

Advantages: Allows for cutting with minimal to no operator intervention; minimal safety concern; allows for repeatable cuts; certain methods allow for clean cuts. Disadvantages: Costly to install; take up space in the equipment line; requires higher



Tapeless Winder Cut and Transfer System



Surface Winder with Automatic Cut and Transfer

maintenance; certain methods can generate debris; certain methods can result in unclean edges; certain methods can result in a biased edge if the web is moving during cutting.

Number of Unwind Positions

Of major consideration is the number of unwind positions that are included with the unwind. The unwind can be provided as a:

Single Position Unwind:

An unwind designed to include a single assembly for holding rolls of web material. Advantages: Lower initial purchase cost; minimal space requirements. Disadvantages: Requires the process line to be stopped for roll changes; requires the process line to be stopped for splicing.

Multi Position Unwind: An unwind designed to include two



Single Position Unwind



Multi Position Unwind

or more assemblies for holding rolls of web material. Advantages: Allows for new rolls of web to be loaded into an unwind position and prepared for splicing without stopping the process. Disadvantages: Still requires the process to be stopped to safely splice the leading edge of the new roll to the end of the expiring roll.

Roll To Roll vs. Continuous Unwinding

For many operations it is not practical to stop the process line for splicing. In these applications the unwind system is designed to allow for the continuous feeding of web to the process by one of two methods: Allowing for the web to be fed to the process continuously while the unwind is stopped; providing a system that allows for the



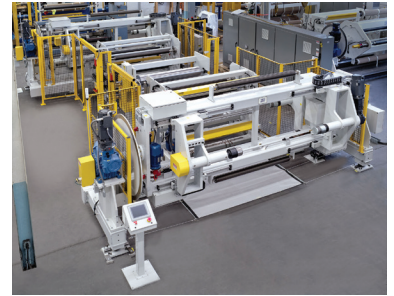
Accumulator

splicing of the new web to the old without stopping the unwind.

Allowing for the web to be fed to the process continuously while the unwind is stopped:

Here a section such as a “J” box conveyor or web accumulator is incorporated into the process line. This section is designed so excess web can be stored in it for feeding to the process while the unwind is stopped for splicing. Advantages: Allows for continuous operation of the process while splices are being made at the unwind; particularly useful when time consuming splices such as sewn or welded ones need to be made without stopping the process. Disadvantages: Takes up floor space; may require a significant number of rolls to contact the web, creating scratches, static, stretching, etc.; does not work well with high-speed operations where significant storage time is required.

Providing a system that allows for the splicing of the new web to the old without stopping the unwind: Here the unwind is



Continuous Unwind

designed to allow for splicing of the leading end of the new roll to the tail end of the expiring roll without stopping the unwind. This type of system can take one of several forms but most typically features a turret unwind with an automatic splicing and cutting system. Advantages: Allows for the automatic splicing of new rolls at high speeds with minimal operator intervention. Disadvantages: Limited to lap type splices; only applies to splices that are performed using tapes or adhesives.

There are many different design considerations and decisions that need to be made when matching an unwind to a web process. Care needs to be taken to assure that the system is designed to maximize the operation of the process. ■

ABOUT THE AUTHOR

Bob Pasquale is one of the founders and principals of New Era Converting Machinery, where he serves as President. He holds a degree in Mechanical Engineering from Stevens Institute of Technology and has worked in the web converting industry since 1985. He is the holder of several patents in the industry. Bob can be reached at bob.pasquale@neweraconverting.com.

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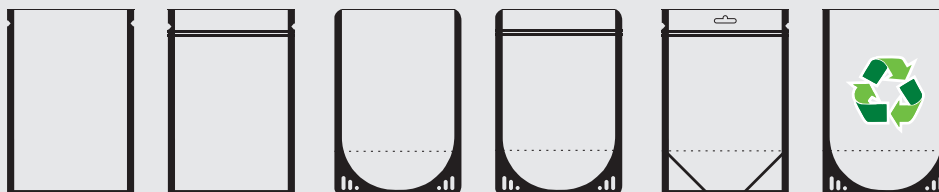
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changeovers



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Packaging that provides easy consumer access and durability is essential to the modern eCommerce experience. Photo courtesy of Filtrona Tapes



Convenience is King in our 'Effortless' Economy

By **Christopher Morgan**, Global Sales Director at Filtrona Tapes

Seamless, frictionless customer journeys are not a fad that's "here today and gone tomorrow;" they're more "here today and here to stay."

For retail success — now and in the future — convenience is the new currency. To meet consumers' expectations for "always-on" and "effortless," retailers must meet their customers wherever they

want to shop and on the terms they wish to purchase.

Retail executives intuitively know that while price remains important, consumers now prioritize a convenient online shopping experience. They seek out and stay loyal to retailers who are easy to shop with. They require retail services to fit around their busy

lifestyles, and that means, above all else, shopping online has to be effortless from start to finish.

As we enter this post-store era, the brands that will succeed will break these boundaries and make commerce as easily evocable as possible by customers, wherever they are and in the moments that matter.

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CRM, all the way to how the supply chain is managed to compete on fulfillment and delivery, brands need to apply a commerce mindset in every area of their operations and make as much of their output as immediately and conveniently shoppable as possible to minimize the friction buyers may experience throughout their journey.

Every Moment Matters

Taking commerce beyond the store and evolving it from a moment into a relationship requires injecting an understanding of human motivations, needs and actions into every aspect of how a brand expresses its differentiation, how it generates interest, how it operates its business and how

it enables customer experiences through people and technology.

While there are many things you should do to make your business more customer-focused, few are more important than maximizing the convenience you can offer to consumers — especially right now. In the long run, convenience may decide your ability to grow your business.

Ease of opening has long been a packaging concern for many consumers. Any discerning pack specifier or brand will know that packaging should never be a frustrating barrier to a product. Even when opening a special occasion gift or an exciting online order, the initial buzz can quickly turn to exasperation with a seemingly impenetrable pack.

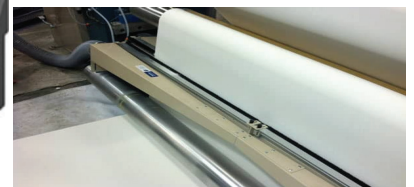
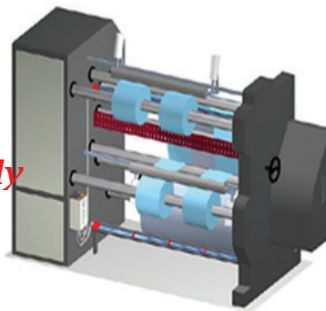
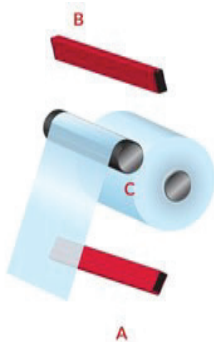
That’s why having the right packaging that provides easy consumer access and durability is essential to the modern eCommerce experience.

Next to your product, your packaging is the most important part of your brand. It takes a lot of time to build relationships with suppliers, tailor your packaging to suit your product, factor in sales channels, design your brand image, review prototypes and schedule line time with manufacturers. Using good quality, well-designed and easy-to-use packaging that ensures goods get from A to B and back again, by whatever circuitous route, can greatly reduce the damaging impact of returns on business and the environment.

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Sealing tape that allows quick and easy access without the need for tools or knives makes opening easy. Photo courtesy of Filtrona Tapes

Whether you're shipping mailers or corrugate boxes, there are two features you can build into them to make opening and returns easy: A sealing tape that allows quick and easy access without the need for tools or knives or risking damaging the product; and liners that enable customers to reuse your mailer for returns.

Convenience by Design

Balancing the needs of the business with the needs of the people creates a "culture of convenience," which allows your consumers to have a convenient experience when they buy goods or services from your company.

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rewired our brains to believe everything needs no trouble. Today, we are still in a retail dynamic where all efforts and investments are funneled into making that first sale. Little investment and responsibility are taken for what happens after that.

Consider, too, the challenges our convenience culture is placing on our environment. Shoppers are now used to the convenience of endless choices, speedy deliveries and seamless returns, all of which previously came at a high environmental cost.

Circularity is primarily a consequence of the decisions made at the packaging design stage. Waste and pollution should be seen through the lens of design flaws rather than an in-

A selection as simple as choosing a tape can enhance brand communication and protection, bolster consumer convenience and contribute to an unforgettable opening experience.

evitable result of manufacturing. Replacing the problem plastics in packaging with completely renewable fibre-based materials is the sustainable alternative consumers are both demanding

and actively seeking. By circulating material over and over, we can keep materials in use, design out waste and regenerate natural systems by reducing pressure on forests.

For now, though, another question surpasses all other considerations. How do we join the dots between seemingly disparate customer demands, sustainability, functionality and value?

Achieving this requires a careful approach to product selection. Choosing the right secondary packaging that balances brands' environmental goals while providing customers with more circular curbside recyclable packaging options will show which companies are truly worth their sustainable salt.

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Innovation in Convenience

Retailers must create a new customer proposition centered on sustainability to move away from a throwaway culture. The good news is that consumers — particularly those from younger generations — proactively want to shop with brands dedicated to embedding sustainable practices into their operations. And the personal touches of an unforgettable unboxing experience can provide a great customer experience and grow repeat conversions.

Your website, store pages, social channels and ads will only reach a certain number of people. The trick to growing beyond that boundary and increasing conversions is turning to another source of photos, kind words and shared posts. A source of user-generated content. An unforgettable unboxing experience.

When creating your unboxing experience, try putting yourself in

the customer's shoes. You sell your product and know it better than anyone, but how should the customer feel when it finally arrives?

When your product arrives in a pristine box, perfectly designed to slide open with your product sitting pretty inside — don't underestimate the impact that can have on your brand.

As an online business, you'll likely never meet your customers, and your only real connection is your product arriving at their door. By creating something unique, you help bridge that gap and help customers enjoy a more memorable experience.

If you've taken the time and effort to tailor your product and packaging, your customers will see and value this, creating loyal customers who shout about what you've sent. And it doesn't need to cost the earth to create your unboxing experience. A selection as simple as choosing a tape can enhance brand communication and protection, bolster consumer convenience and contribute to an unforgettable opening experience.

Delivering convenience requires a proactive mindset that anticipates your customers' changing needs. You can eliminate friction points by ensuring that your entire team is fully engaged in improving the customer experience. A more enjoyable and streamlined process will ultimately benefit everyone, making life easier for your customers while reducing your workload.

Post-click operations should seamlessly deliver your brand message with a strong alignment between marketing and operational components to support frictionless execution. Retailers today need to win at this idea of delivering an effortless economy and providing a seamless omnichannel journey and a competitive customer experience.

Whether your brand is premium or value-led, it stands to significantly benefit from return-ready, memorable, true-to-brand packaging solutions that drive sales and improve recall. ■

ABOUT THE AUTHOR

Christopher Morgan is a results-driven and customer-focused packaging executive with extensive experience in building thriving and profitable relationships with recognized consumer product companies and printers. Morgan has broad-based general management experience with strengths in sales management, international sales, customer service, quality management, manufacturing operations and overall company/facility P/L responsibility.

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It's All About Converting

The Leading Event for Paper, Film, Foil and Nonwovens Converting

By **Lindsay Tyler**, Marketing Director, RX Global

The International Converting Exhibition and Conference – also known as ICEC USA – is returning to Orlando, Florida January 9-11, 2024, and registration is now open. As the Americas' leading event for paper, film, foil and nonwovens converting buyers, suppliers and manufacturers convene here to get a firsthand look at the latest machinery, technology and manufacturing solutions.

The show attracts industry experts from a wide range of sectors, including packaging, printing, plastics, textiles and nonwovens, paper, engineering, chemical, medical and pharma, automotive, aviation, food and electronics. Attendees have three days to discover leading global vendors and see machines in action, attend hands-on demonstrations and test full-scale operating equipment on the show floor – all at ICEC USA.

A sampling of some of its leading exhibitors include: Catbridge Machinery, Maxcess, Double E Group, New Era Converting, Davis Standard, Delta ModTech/Frontier, DIENES Corporation, Kroenert, TC Transcontinental Packaging, and many more. A full list of exhibitors as well as the product directory is available at www.convertingshow.com.

What Visitors Will See

- Coating, Drying/Curing, Metallizing, Packaging, Toll Coating, Treating, Finishing, Laminating



Event attendees have three days to see machines in action and attend hands-on demonstrations. Photo courtesy of ICEC USA.

- Printing, Adhesives, Inks, Substrates, Labels & Labeling
- Slitting, Rewinding, Sheeting, Cores, Core Cutters
- Automation, Handling, Retrofits/Used Machinery, Bag Making
- Machine Components & Accessories
- Inspection, Test & Measurement, Quality Assurance
- And more!

Returning to Orlando, Florida

Conduct business with the North American converting industry in sunny Orlando, Florida, with an easily accessible international airport, low labor and drayage costs at Orange County Convention Center, and low rates for

surrounding hotels – not to mention entertainment, restaurants and shopping – where networking opportunities are bound to happen both on and off the show floor.

Learning Opportunities

Take advantage of multiple learning opportunities throughout the event to sharpen your expertise, strengthen your network and stay up to date on the latest industry developments. Attendees will learn how to improve efficiency and cost-effectiveness on the job, with information that can be implemented in the workplace immediately. Conference sessions offer content for every level of experience, whether you are just starting out and need the basics or

you are looking for in depth industry research.

Technical Program

Technical sessions, organized by the Association for Roll-to-Roll Converters (ARC), are comprised of concurrent tracks covering a range of industry topics including flexible packaging, gravure, sustainability, vacuum coating, web coating and laminating, web handling and much more.

Fundamentals Courses

Also curated by ARC, Fundamentals Courses are one-day programs taking place January 8, a day before the Exhibit Hall opens. Taught by industry leaders, these

programs provide value whether you are established or brand new to the industry, with multiple different courses to select from.

Ask the Experts

Back by popular demand! Meet one-on-one with some of the industry's most accomplished experts who can help solve strategic, technical and operational business challenges. These valuable 15-minute consultations are free, private and available right on the show floor.

Future of Converting Theater

Be prepared for what's on the horizon and how it will impact



Full-scale operating equipment is on hand for testing at ICEC USA. Photo courtesy of ICEC USA.

your business with these forward-leaning presentations led by the converting industry's visionaries and leaders. Stay ahead of your competition with new technologies and best business practices. The Future of the Converting Theater is conveniently

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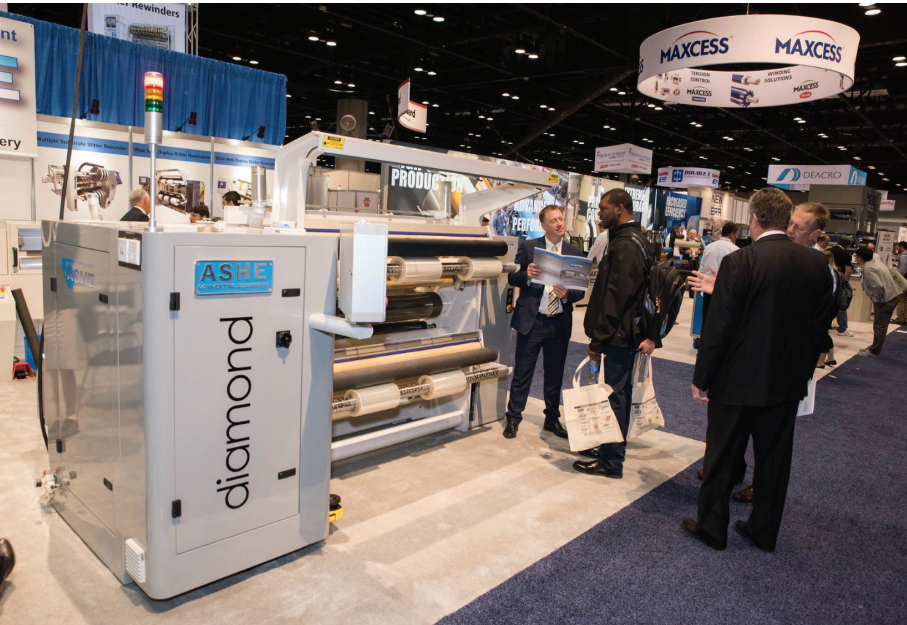
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The show attracts industry experts from a wide range of sectors, including packaging, printing, plastics and more. Photo. courtesy of ICEC USA.

located on the show floor.

Whether you are looking for new products and technologies, new contacts or new ways to keep your business running at peak performance, your solutions are here. There are several conference programs and networking events taking place each day of ICEC USA – both in the classroom and on and off the show floor.

Register today via the link <http://icec24.com/PFFC> to receive a complimentary Exhibit Hall Only badge (a \$50 value). To learn more, visit www.converting-show.com.

To inquire about exhibiting at the event, please contact Allison Honkofsky at allison.honkofsky@rxglobal.com. See you in Orlando! ■



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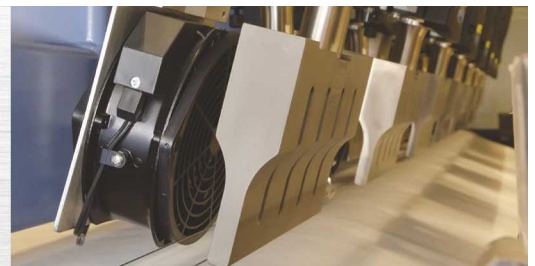
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TLMI Committees are led by Members and drive initiatives that align to TLMI Strategic Priorities and Values. Employees of member companies can join any committee, which include Membership, Regulatory Affairs, Sustainability, Technical, and Workforce Development.

WE HOST THE INDUSTRY'S TOP EVENTS...

Each year TLMI hosts three in person events across the country where members learn about industry trends, participate in panel discussions and peer groups, and create connections with other industry leaders.

THE FACTS



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event satisfaction

65%

label industry sales revenue attributed to TLMI members

90

TLMI is celebrating it's 90th anniversary this year



R2R USA Conference Draws Biggest Crowd in Five Years

The R2R USA Conference hosted by the Association for Roll-to-Roll Converters (ARC) in October, recorded the highest number of attendees in five years. Planning for next year’s meeting (September 22-26, 2024 in Charlotte, NC) is already underway with expectations for an even bigger event.

The following content tracks will be offered in 2024:

- Coating & Laminating
- Vacuum Web Coating
- Battery Manufacturing
- Web Handling
- Printing
- Sustainability
- Flexible Packaging.

Submit presentation ideas for consideration at www.rolltoroll.org/r2r-call-for-papers, and watch

the website for location information and agenda details.

ARC Presents Live and Online Converting School Courses

The ARC in-person Converting School Courses return to Green Bay, WI, April 17, 2024. Two eight-hour courses will be offered to help participants learn new skills:

Introduction to the Coating Process — Instructor: Ted Lightfoot. This course provides an overview of the coating operation. Major topics include wetting and coating, common types of liquid coatings and their behavior, introduction to the coating window, common coating operations and their capabilities, defects associat-

ed with various coating methods, coating windows for common coating methods, managing the coating window and coating formulations, operating technology for a coating machine, statistical process control and control charting, maintenance, safety, troubleshooting and defect reduction.

Essentials of Web Handling — **Instructor:** Dr. David Roisum. Master the fundamentals of the must-know topics of rollers, nip, tension and path control, wrinkling, spreading and winding.

The in-person courses cost \$499 per person for ARC members and \$899 per person for nonmembers. Sign up at www.RolltoRoll.org, click “Education” and select “In-person.”

ARC also offers an array of



The R2R USA Keynote Panel. Photo courtesy of ARC.

online courses. “With an online course, coursework can be completed at your convenience,” explained Chris Kerscher, executive director of the ARC. It also saves travel time and expenses.

Online course subjects include:

- Web Handling and Converting — Instructor: Dr. David Roisum
- Roll-to-Roll Vacuum Deposition onto Flexible Substrates — Instructor: Dr. Charles A. Bishop
- Adhesion and Adhesives for Converters — Instructor: Professor Steven Abbott
- Drives for Web Handling — Instructor: Clarence Klassen P.E.
- Web Slitting Technology —

Instructor: Dave Rumson

- Winding: Machines, Mechanics and Measurements — Instructor: Dr. David Roisum
- Solution Preparation and Mixing — Instructor: Dr. Kenneth McCarthy
- Gravure Basics
- Gravure Application Professional
- Gravure Entry-Level Technician
- Gravure Operator
- Gravure Master Operator

The cost per course for non-gravure-related courses is \$499 for ARC members, \$599 for nonmembers. Gravure course costs range from \$750 to \$2,700 with discounts for ARC members and require the purchase of two

textbooks: “Gravure: Process and Technology” and the GST Blue Book, “Gravure Specifications and Tolerances.” Learn more and register at www.RolltoRoll.org, click on “Education.”



ARC Announces 2024 Schedule of Activities

ARC organizes or participates in numerous events each year. The schedule for 2024 is filled with an array of activities beginning with ICEC USA (January 9-11, 2024; Orange County Convention Center; Orlando, FL), which will

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feature an ARC Pavilion with discounted booth space for members. Other 2024 events include:

- **Converting School Courses:** Introduction to the Coating Process and Essentials of Web Handling (April 17, 2024; Green Bay, WI)
- **Annual Meeting, Spring 2024**
- **R2R Europe Conference** (Summer 2024; Munich, Germany)
- **R2R USA Conference** (September 22-26, 2024; Charlotte, NC). In addition to multiple technical tracks, attendees will recognize the 2024 Class in the ARC Hall of Honor and the recipient of the 2024 Women in Industry Scholarship for Excellence

(WISE). Applications for nominations to the Hall of Honor may be found at www.rolltoroll.org, click on “Events,” then “Industry Recognition.” To apply for the 2024 WISE or to donate to support the program, go to www.rolltoroll.org/wise-scholars.

Membership in ARC Yields Many Benefits

Many companies join the ARC to solve technical problems, network and expand their business relationships. Core member resources are found at www.rolltoroll.org under “Resources.”

All personnel employed by ARC member companies

have access to a newly expanded Technical Library, which includes more than 400 webinars, articles and R2R Conference presentations (videos). Many companies use these resources for training or onboarding new employees.

“We are the only association providing direct access to multiple roll-to-roll industry segments in one place,” reported Tim Janes, member outreach director for the ARC. “This enables member companies to expand their business into other high-growth segments, learn best practices from others and apply them to their business.”

For more information, visit www.rolltoroll.org or contact Janes at (803) 948-9469, tjanes@rolltoroll.org. ■

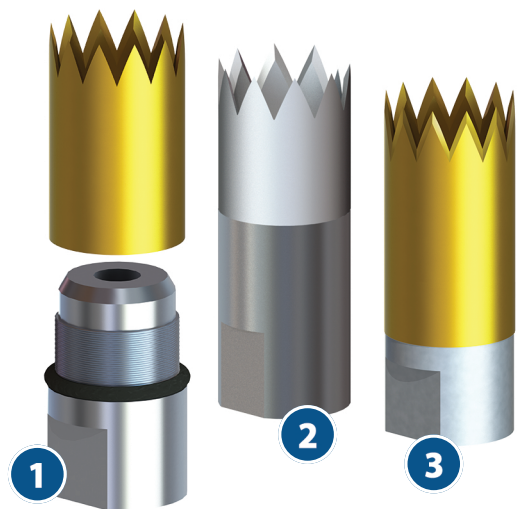
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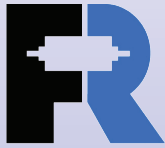


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