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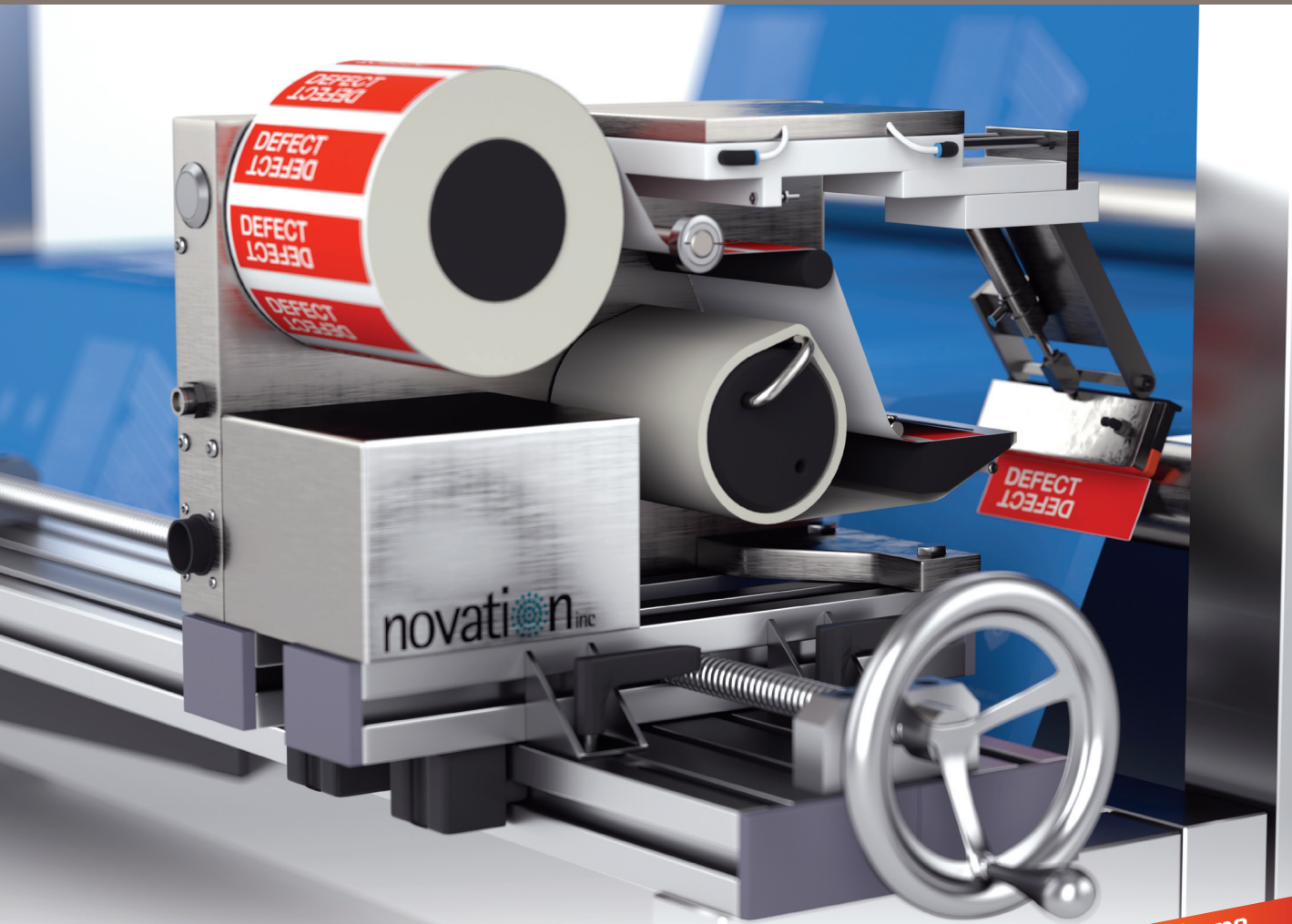
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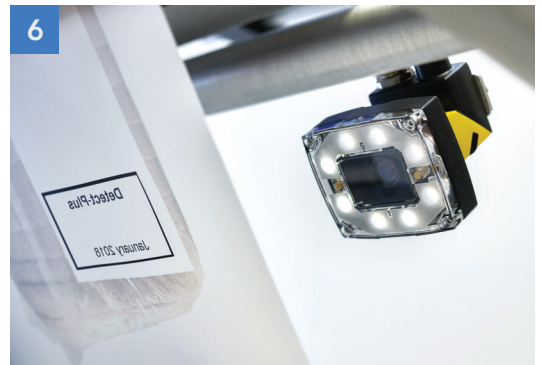
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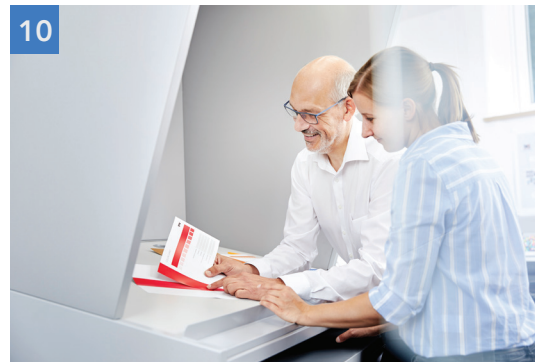
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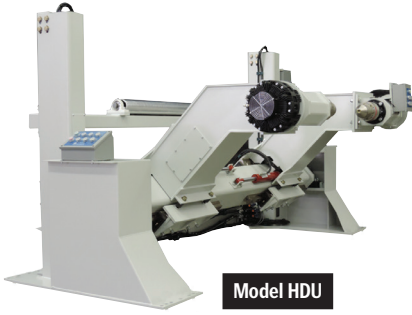
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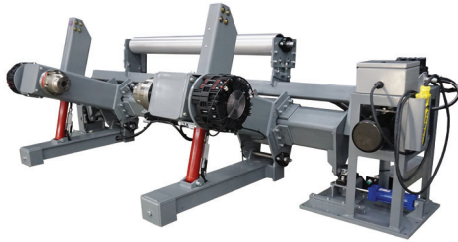
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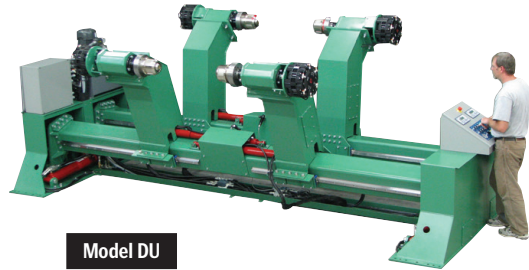
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Sustainability is Nothing New...



Joan Mantini
Editor

As we celebrated Earth Day last month, my inbox was flooded with emails highlighting what the packaging industry was doing to take part in this annual event celebrated around the world. Although we have designated just one short day to promote this movement, the topic of sustainability has been trending in our industry, on a daily basis, for well over two decades now.

Indeed, packaging is an inevitable part of global markets and its need for protecting products was seen more than ever during the COVID-19 pandemic, as we witnessed more and more consumers have shifting shopping habits to online. However, Earth Day was created to raise awareness so that consumers, governments and manufacturers could no longer ignore these problems. In response, sixteen U.S. states now have regulations that specifically target packaging waste, and I am quite certain we can expect more states will mimic these regulations, targeting both the materials implemented and the ways recycle methods.

Looking beyond the U.S., France, Germany and the UK are introducing fees for non-recyclable packaging, and Thailand and Chile are introducing bans on plastic bags. China also has plans to improve recycling, ban plastic bags, and introduce measures to reduce single-use plastic packaging, and Mexico City has introduced a ban on most single-use plastic items.

The good news is that brands are responding aggressively to meet the need for more sustainable packaging options. Many companies have made sustainability commitments, and many are aiming to reach their goals by 2025. It will be here before we know it!

I have enjoyed seeing what some of the solutions and innovation being brought forth are in new materials, machinery, shipping, and more! It has also been enjoyable watching the goals that have been set by numerous companies in our industry. Keep 'em coming!

Joan Mantini
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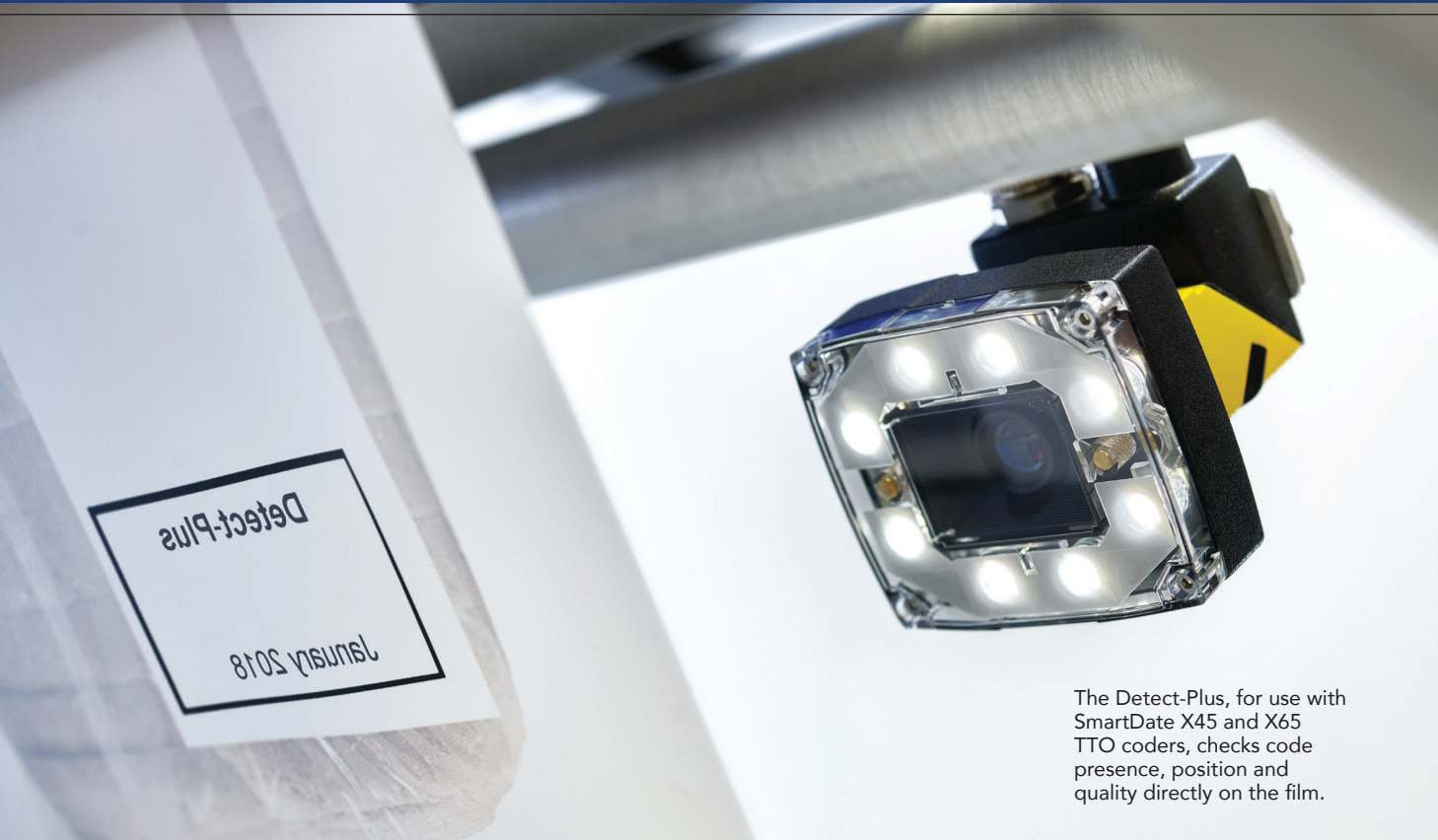
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The Detect-Plus, for use with SmartDate X45 and X65 TTO coders, checks code presence, position and quality directly on the film.

Ensuring Accurate, High-Quality Codes on Flexible Film

By **Andy Gray**, Marketing Manager for thermal transfer overprinting solutions at Markem-Imaje

Often the last element added to items, codes are a vital part of the product journey. Typical data includes batch numbers and expiry dates but can extend to variable information such as QR codes, ingredient lists and barcodes. Increased expectations in terms of traceability and digitalization are fueling an increase in complexity. In food and beverage alone, code length is likely to double from 30 to 60 characters.

Illegible, missing, or incorrect codes can cause modern supply chains to break, with significant

financial and reputational costs, e.g., retailer or wholesaler fines and slow, unnecessarily large recalls. It is imperative therefore that manufacturers choose the technology offering the optimal balance of quality and performance versus cost.

Mechanical methods left behind by digital

Although used extensively for years, mechanical coding has many disadvantages.

Used in batch processes, hot

stamping applies codes with a metal stamp held in a heated block. It is inflexible as the stamps are static and must be changed before each new job, making it ripe for human error. Also, as manufacturers use ever-thinner films, worn or broken stamps can perforate films, causing waste.

Rotary coders, used in continuous processes, pick up ink from a tray and transfer it to products. As the ink in the roller runs low, print quality is reduced, often such that it becomes hard to see. Additionally, rotary coders work on a fixed pitch,

sometimes making it difficult to accurately apply a code. They are also susceptible to operator mistakes.

Neither are suitable for printing barcodes, ingredient lists and real-time information. Digital technologies accommodate these easily, with many more characters. Codes can often be updated without even stopping production.

Thousands of messages can be stored within the printers themselves, transferred by operators using USB sticks or automatically sent to networked coders via suitable software pulling the data directly from company databases to ensure codes are 100% correct and compliant, while accelerating production start-ups. The printed data can even be sent back to the databases giving companies real-time inventory visibility.

Which digital method is best?

There are four principal options – laser, continuous inkjet (CIJ), thermal inkjet (TIJ) and thermal transfer overprinting (TTO). TTO is the only one specifically for flexible film.

As with most things, the choice depends on the situation.

Any method producing 300 dpi is considered to match the quality of pre-printed designs. Theoretically, the best code will be produced by a TIJ working at low speed. However, as TIJ is a non-contact technology, any line vibrations can cause small print distortions. Also, as speed increases, the quality gradually deteriorates until TIJ can be matched by the other methods.

TTO and laser are the best for 300 dpi prints on medium to high-speed lines, respectively. However, laser cannot be used on all materials. If 70 dpi is acceptable, then CIJ is also suitable for fast lines as it prints on any surface at all available



Markem-Imaje is the CIJ market's only major supplier to offer integrated "Mark & Read" functionality built into a coder – the 9450.

conveyor speeds. Some CIJ heads achieve higher a dpi (e.g. 110), so it is worth checking a supplier's options.

Print size and design complexity also have an impact. Of the various digital choices, TTO transfers the most data, making it ideal for printing dates, product information, logos, nutritional information, ingredient lists and barcodes etc.

For glossy films and foils requiring text with exceptionally high resolution, TIJ may be best but care must be taken to ensure the print does not smudge since the ink does not dry instantly when printing on film.

Laser offers the best permanence. Users needing high durability could also consider CIJ, with specific inks for high adhesion. Another option is a high resin TTO ribbon; this may require lower speed but durability will be better than CIJ.

Generally, where consumables are required, it is important to pick an appropriate one for the application; otherwise, codes may fade prematurely, smear, be susceptible

to tampering etc. A knowledgeable supplier is vital to ensuring the necessary quality.

In terms of cost, it depends whether the priority is to minimize capital versus operating expenses.

A good laser, set up properly, can run for years with no downtime impact and no intervention apart from occasional fume extractor filter replacement and lens cleaning. Its OPEX is negligible.

By contrast, TTO, CIJ and TIJ have lower CAPEX but require ongoing maintenance and consumable purchases.

In TTO the consumable is ribbons. Different types exist for various films, temperatures, chemical and rub resistance requirements and line speeds. Replacement, taking around 30 seconds, is typically needed every few days but, beyond this, very little maintenance is required.

TIJ has all its consumables within the "cartridge" printhead, making for easy maintenance. However, this can result in high

costs if the printhead needs changing frequently (e.g., regular high-speed operation).

CIJ requires inks and additives. It is advisable to use modern consumable management systems. These ensure mistakes are impossible and the sealed units eliminate fluid contact. They can be replaced with lines running. With older systems messy spillages are possible and downtime is greater.

Checking accuracy

Manufacturers should confirm they have printed their intended message. Digital technologies enable this.

Sophisticated software and camera solutions, often referred to as “Mark and Read”, can be applied with any of the digital options

above. Optical character recognition confirms that every print is present, readable and correct. Some solutions even have on-line barcode quality scoring in real time, rather than waiting for periodic lab grading assessments. Problems can be corrected in real-time before too much improperly coded stock is produced, minimizing waste. Given such installations can be complicated, manufacturers should scrutinize a supplier’s track record in providing seamless integration. Alternatively, a coder with this facility ‘built in’ could be chosen.

Some TTO coders offer simpler solutions. One approach checks code presence on flexible film by looking at the ribbon and inferring the information. However, this only identifies that the code has been printed, but

not its angle or if it missed the pack entirely. A more accurate method checks the presence, position and quality of printed codes directly on the film packaging itself. ■

ABOUT THE AUTHOR

Andy Gray is the marketing manager for thermal transfer overprinting solutions at Markem-Imaje and has been with the company since 1993. Andy is also one of the authors of Markem-Imaje’s white paper on flexible film coding.



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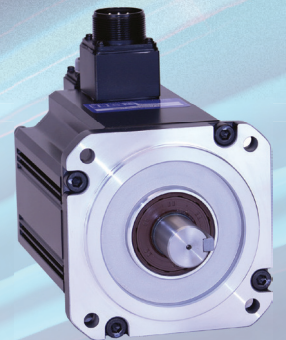
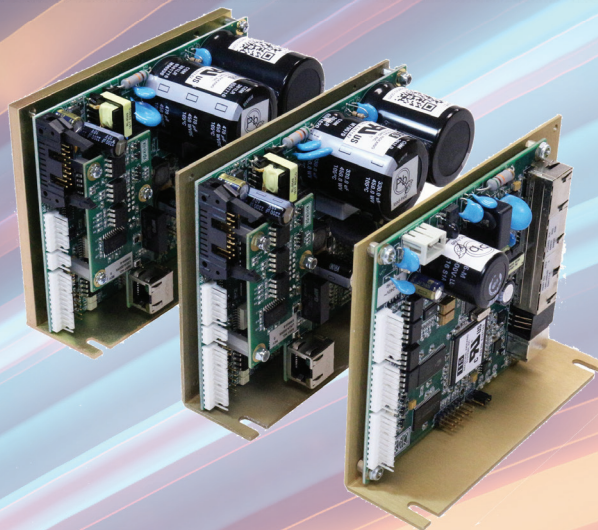
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A Digital Process to Create Better Ink Drawdowns

By **Marc Levine**, Director of Business Development, GMG Americas

Brands need to be assured that a printer, and a press, will meet the challenge of matching their colors. A brand's colors may appear on a wide variety of substrates that can have different surface colors and printability. To ensure the same visual appearance, a printer or ink company performs a color match for each different printing material, on each different printing process. The color match is done in an “ink kitchen”—a special

room with special ink formulation software and equipment.

The process to show that an ink can match brand expectations is important. Unfortunately, creating an ink “recipe” is also quite involved. Part of it is the production of a real physical target that allows partners to visualize the color before going to press. Part of the matching process involves making multiple “draw-downs” where a small of ink is

applied to the printing material to test how well in ink formula will reproduce a specific color.

Conventional drawdown-based color prints

Drawdowns are necessary to get to the closest matching color—the only way to determine what the ink really looks like on a substrate.

Conventional prints are sometimes created with a small,

special printing machine simulating real printing conditions as closely as possible. In other cases, drawdowns are made with a manual hand-roller. In some special cases, printers will even use an actual press to make the prints, typically very expensive. Varnish or laminates may be applied to the drawdown to simulate those effects. This is often slightly different than in production, resulting in some variances in appearance.

To finish a traditional color print, rectangular patches are cut from the drawdown and mounted on a card or sheet with job information—and sent to all supply chain participants. If the color isn't approved, a new color match might be created—with new drawdowns—for further review and approval. Once everyone signs off, the printer is contractually required to match it on press.

A new process: digital color cards

There is a new approach that is simple to use, faster, and more consistent: digital color cards. A digital color card solution creates color match reprints, including the substrate color and texture, on a calibrated digital inkjet printer using reliable, wide gamut inkjet media. Because no special equipment is required, they may be printed anywhere, even onsite at the brand or designer, without shipping costs or delays.

For the printer, color cards are indispensable for setting expectations in advance. Early brand evaluation can help to set expectations upstream so that printers can achieve the best possible end results with minimum rework or waste on press. With digital



Digital Drawdowns Work for Seb. Wolf GmbH

Adalbert Heckler is a color management consultant (cmmb-heckler), hired to recommend, implement, train and control a complete color management system for Seb. Wolf GmbH, in Germany. Wolf, who celebrated its 100th anniversary last year, produces upmarket high-end labels, sophisticated job printing and packaging for producers and marketing companies.

About 85 percent of Wolf's inks are spot colors. They wanted to be independent from an ink factory, to gain control over in-house ink mixing. While they invested in ink formulation software, they determined that they needed a better way to show customers ink colors before going to press.

Wolf often had to remix inks so that spot colors would print correctly on different substrates. They needed a drawdown process that would reduce costs, add speed, and improve color accuracy on their substrates—along with holding color over a longer period of time.

"We installed a digital color card system in the ink lab, conducting press fingerprints, and were given settings for standard substrates—and new templates for custom substrates" remembers Heckler. "We can now print samples with or without variations. For example, if the customer is willing to accept ± 1 dE on press, we can show them three patches: one that is perfect, and ones that are +1dE and -1dE. We can also print a number of test tint patches from 0-100 percent. With the digital system, we are more precise than before."

After a color is modified, a digital color card "proof" is passed around for approval. If a customer has eight people who need to view the samples, it is much easier and less expensive to send eight digital color cards. Customers get exactly on press what they see on the cards.

For Wolf, GMG ColorCard is faster, has reduced makeready time, and reduced stock waste, because the color on press is now accurate. "To create a color reference traditionally would take 45 minutes. To get a digital color card takes three minutes—and is much cheaper," notes Heckler. "In fact, if someone is out for the day, we can easily replicate the ink from the recipe."

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color cards, printers have an accurate spot color visual for each combination of ink and substrate, even when using different print technologies.

How about density variations and tints?

Conventional drawdowns can provide target color examples, but there will always be some variation on press. Many brands use 2 dE00 (deltaE 2000) as a tolerance—but what does that look like? Digital color cards can offer an accurate visual representation of both the color target and variations based on allowed tolerances. Thus, printers can truly set the visual expectation for the brand upstream—before going to press.

Conventional analog color drawdowns cannot effectively simulate how tints will print because the tools are either expensive or printers don't have every variation of drawdown tooling to match production. With digital color cards, everything happens on the same card, with digital precision.

What does this mean?

Ink drawdowns typically require manual work done by experienced ink kitchen staff. The industry is continually searching for trained operators to oversee these significant tasks. This simple, easy-to-use digital solution allows printers to assign the task to users with basic computer skill sets, saving their experts' time for more sophisticated work.

Digital color cards ensure that print results meet print buyer expectations, easily illustrating color variations within spec. They help supply chain partners to simplify the color communication process from start to finish. Digital color cards make the visual color communication process faster, more accurate, and more reliable—something that printers can easily provide—and brands can work with. ■

ABOUT THE AUTHOR

Marc Levine is a member of GMG Americas' senior management team as director of business development. In this role, Levine helps to expand adoption of GMG technology across all print segments.

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Diagnose Static Problems With A Handheld Static Meter

Handheld fieldmeters are our workhorse tools for solving static problems.

By Kelly Robinson, PE, PhD, Electrostatic Answers

Handheld static meters are our most important instruments for diagnosing and solving static problems. First, let's take a look at what handheld static meters measure. Then, we'll use our meter to diagnose and solve a static problem.

The handheld static meter in Figure 1 responds to the number of electrical charges on the plastic sheet or web. The meter displays the electric field E_{Sheet} caused by the charges. Most static meters are calibrated at a specific measurement distance D_{Meter} recommended by the vendor. Read the directions to learn the calibration distance. For many meters, the calibration distance is 1 inch.

The display often has units of "KV" or kilovolts. So, you must divide the displayed value by the calibration distance D_{Meter} to get the electric field. This is important when you compare readings taken with different meters.

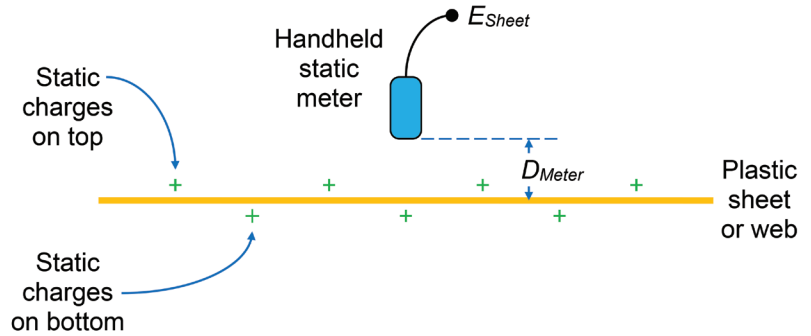


Figure 1: Hold the meter distance D_{Meter} from the charged sheet or web

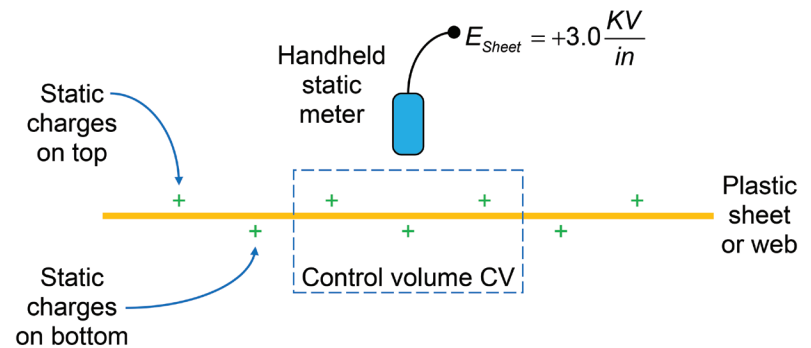


Figure 2: The static meter responds to all of the charges in control volume CV.

For example, if the calibration distance is 1 inch and the meter reads “+5.0 KV,” the electric field is found in (1) to be +5.0 KV/in.

$$E_{\text{Sheet}} = \frac{V_{\text{Displayed}}}{D_{\text{Meter}}} = \frac{+5.0 \text{ KV}}{1.0 \text{ in}} = +5.0 \frac{\text{KV}}{\text{in}}$$

The static meter responds to charges on both the top and on the bottom of the web. To help me take readings, I do this “mental exercise.” In my mind’s eye, I draw a control volume in front of the static meter in Figure 2 around the plastic sheet or web. The static meter responds to all of the charges inside the control volume. Since there are three positive charges inside the control volume, the meter reads +3.0 KV.

Notice that some of the charges are on the top and some are on the bottom. The meter responds to all of the charges on both sides. So, we can take

Look for high static readings. High readings indicate static problems. And, look for big changes from one reading to the next. These changes in readings indicate sources of static in the process. Finding the sources is the key to solving the problem.

static reading from either side. We’ll get the same reading from either side. This is good because we can pick whichever side is safer and easier to measure. There is no need to measure both sides.

Now, let’s solve the static problem. Suppose the process in Figure 3 has high static on finished material that causes a problem. Of course, we should measure the static level E_{Finish} to see how much static is causing the problem.

To solve the problem, write down the static readings along the material flow in Figure 3 beginning with the incoming materials, exiting each process step, and finishing with a reading on the finished material. Look for high static readings. High readings indicate static problems. And, look for big changes from one reading to the next. These changes in readings indicate sources of static in the process. Finding the sources is the key to solving the problem.

Suppose that E_{Income} in Figure 3 is too high. The static problem may be caused by high static

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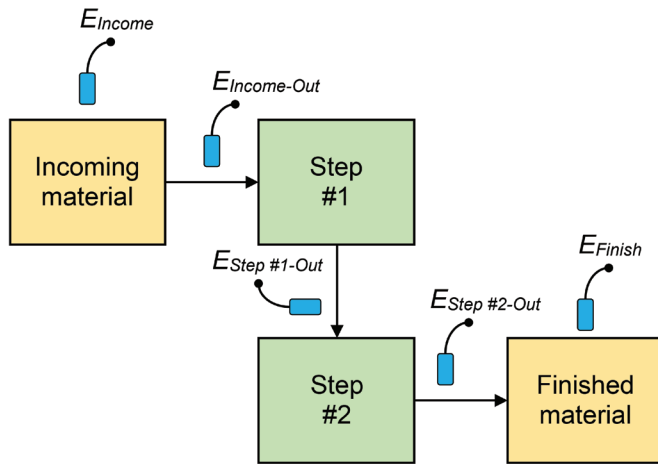


Figure 3: Take static readings along the material flow through the process.

on incoming materials from your supplier. Solve this problem by working with your supplier.

If E_{Income} looks OK, then look at $E_{Income-Out}$. If $E_{Income-Out}$ is high, then there is something about how we handle incoming material causing high static. Focus on reducing static in how we handle incoming materials, or dissipate static on the material entering the process. Many good static dissipators are commercially available.

If $E_{Income-out}$ is low, then look at $E_{Step \#1-out}$. If $E_{Step \#1-out}$ is high, then there is something going on

in process Step #1 causing high static. Focus on reducing static in process Step #1, or dissipate static on material exiting Step #1.

If $E_{Step \#1-out}$ is low, then look at $E_{Step \#2-out}$. If $E_{Step \#2-out}$ is high, then there is something going on in process Step #2 causing high static. Focus on reducing static in process Step #2, or dissipate static on material exiting Step #2.

And, of course, dissipate static on the finished material to keep E_{Finish} low.

When static is well controlled, write down the static readings

again along the material flow in Figure 3 from the beginning incoming materials, exiting each process step, and finishing with a reading on the finished material. This ensures that all readings are low and that the static problem is solved.

Solve static problems by using your handheld static meter to locate the sources of static charging. Dissipate static at the sources of charging. And, dissipate static at the process location that has the problem. Then, use your static meter to verify that the problem is solved. ■

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Kelly Robinson, PE, Ph.D., is the owner of Electrostatic Answer, an engineering consulting company dedicated to eliminating injury and waste from static electricity. He can be reached directly at Kelly.Robinson@ElectrostaticAnswers.com.



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Value-Added Processes: Coating, Laminating and Metallizing

By **Lee Ostness**, Product Manager – Coating & Drying at Davis-Standard’s

Coating, laminating and metallizing are value-added processes that enhance a base web into a higher-value end product. In some converting processes, all three operations (coating, laminating and metallizing) occur for applications such as window film and paint protection films. These innovative treatments are improving the inherent characteristics of many products that impact daily living within the food packaging, automotive, construction and healthcare segments.

Davis-Standard addresses these processes through customer consultation, machinery design, performance engineering, installation and start-up expertise. The company’s legacy equipment

brands support both extrusion and converting applications, diverse substrates, and end-use products for nearly every market. Specific to coating and laminating, Davis-Standard is known for automatic profile control (APC), deckle and die technology, multi-coating solutions, web handling, transfer unwinds and winders. The company is also at the forefront of digital transformation for smarter manufacturing. Davis-Standard recently introduced the DS Activ-Check™ which uses the interconnectivity of the Industrial Internet of Things (IIoT) to turn machine data into meaningful production gains. Extensive capabilities and a trusted network of suppliers enables Davis-Standard

to offer single-source responsibility and robust aftermarket services to customers worldwide. This includes laboratory testing and evaluation at R&D facilities in the United States and Europe.

Davis-Standard’s solution coating and extrusion coating machinery is focused on efficiency, quality and value. Solution coating machinery supports a range of opportunities from simple priming, to adhesive applications, to solar receptive coatings. The solution can be water-based, solvent-based, or 100 percent solids. Extrusion coating machinery is built for versatility for adding different polymers to the primary web as a moisture barrier, vapor barrier, or has a strengthening agent.



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Davis-Standard's coating platforms are known for handling the most demanding flexible packaging, non-woven, paper and board coating, and laminating applications and our team can work with you to determine specific requirements and equipment needed to achieve desired results.

In terms of laminating or bonding two webs/substrates together, processors can use solution coating (adhesive), or a melt extrudate using extrusion lamination. Examples of end-use products that use solution coating include tape, roofing and solar films. Examples of end-use applications that use extrusion lamination include food packaging, juice boxes, batter layers, trash bags and agricultural films. Key design

considerations when selecting a coater/laminator include:

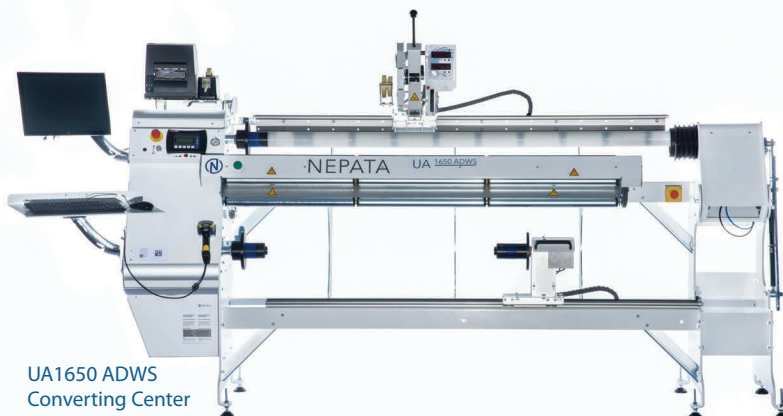
- Substrate and overall structure
- Nature of coating and lamination structure
- Desired outputs
- Coater – coating thickness and uniformity plus drying rate
- Laminator – thickness of structures being laminated
- Desired adhesion levels
- Flexibility to change resins
- Ease of quick changes
- Evaluation of unwind and winder for the overall quality of the end roll

Davis-Standard's engineering team works with customers to address specific lamination requirements, taking into consideration

current and future business objectives.

Metallizing is used primarily for functional (barrier), decorative and aesthetic applications. This can be achieved by laminating a 0.0003" foil to a paper/film web by adding a solution-coated adhesive or by laminating the foil using an extrusion lamination process. Davis-Standard supports both of these processes. There is also vacuum metallizing and sputter metallizing, but these methods are not within Davis-Standard's expertise. It's important to note that when metallizing on paper, there is a special coating required to accept the metallization. Davis-Standard's strength is in handling and using thin-gauge foil at high speeds to make this possible. ■

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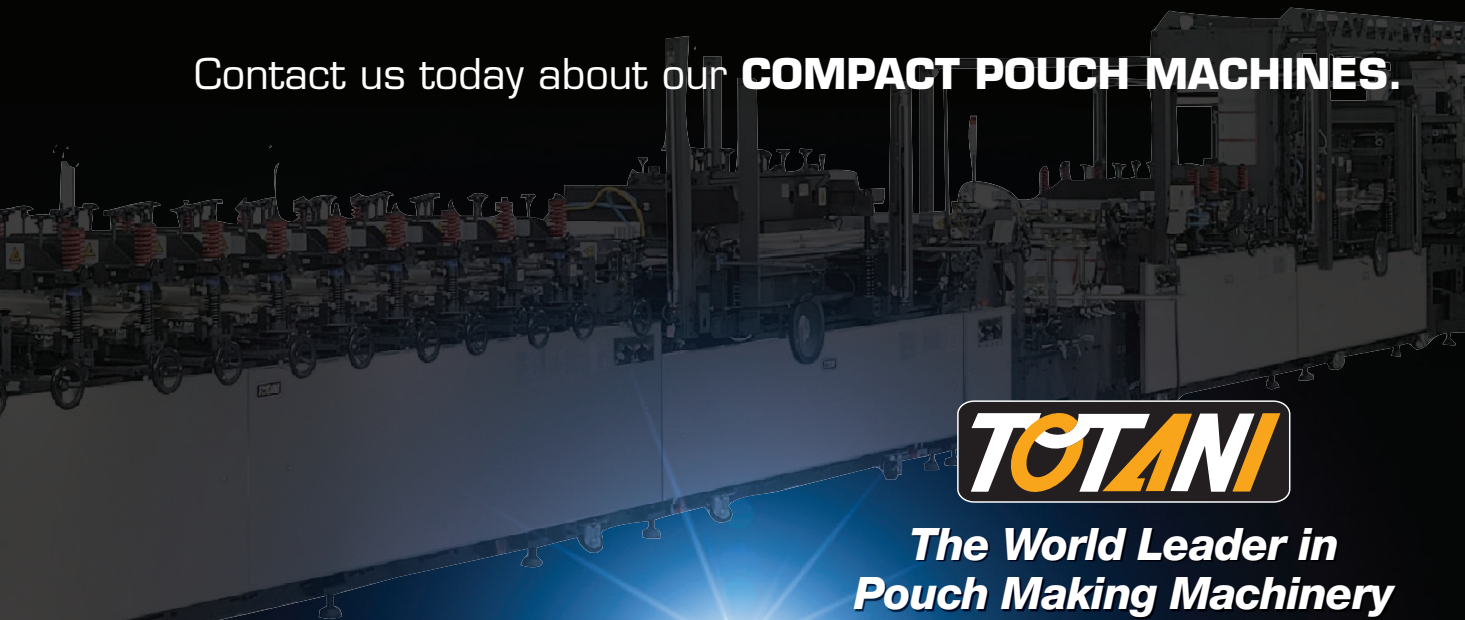




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IQ Power System

Contributed by **Simco-Ion**

Many processes within converting applications can generate large volumes of static, causing one to be unable to meet profitability goals, to keep workers safe, and to achieve optimum product quality. Common critical converting process affected by static include extrusion, web cleaning, laminating and coating, winding and rewinding, and roll-to-roll changeover, to name a few. In a time when quality, safety and speed to market are of the utmost importance, effective static control management is the key to success.

The utilization of flexible film-based materials and the desire to speed up lines has increased the chances of contamination being drawn to the production process. Unmanaged static electricity during the process can lead to a variety of issues putting more web material at risk should a process problem arise. Therefore, controlling static charges becomes even more critical. Converters today need the most intelligent, reliable, and effective static control to reduce downtime and waste and to meet their profitability and safety goals.

In designing the new IQ Easy LP (low profile) static bar, Simco-Ion understood that today's converting market requires a compact (3/4-inch tall), powerful (integrated high voltage supplies power to drive bars as long as 215cm) and intelligent static bar. In order to address the decreasing space available on machinery,



this compact bar also mounts to ground for unsurpassed performance in the tightest of spaces. It offers superior close-range ionization for high-speed webs traveling up to 3,000 fpm and can operate at a 1-inch mounting distance. For the highest level of performance, the power supply design is especially important. The built-in high voltage power supply of the IQ Easy LP provides the power to maintain the consistent high-level of ion output required for industrial applications, unlike other static bars. And when connected

to the IQ Power Control Station, it offers the ultimate monitoring intelligence that is easy to use.

Converters today are not only looking for industrial static control technology that provides improved efficiencies and quality, but also the highest level of communication and monitoring to take their processes to the next level. Simco-Ion's customers have come to rely on the technologies of the IQ Power System that monitors static charges on their lines, records data and signals potential problems. This smart system can adjust, display and record ionizer status, ionizer output and in-process static charge levels. Faced with the quality, safety, and general production issues that static charges can create, it is essential to incorporate the intelligence necessary to keep production running as quickly and safely as possible.

With the IQ Power System, Simco-Ion continues to lead the industry with innovation and technology. The system combines exceptional ionization performance and ultimate monitoring intelligence with user-friendly functionality. This fully integrated scalable system makes installation a snap. There is no complicated software to install and the "smart addressing" technology and flexible mounting options make this system and its components easy to add to any existing application. Configurable parameters allow the user to understand, monitor and control their static neutralization challenges. The core of the IQ Power System is the Control Station, which includes a full color touchscreen designed with

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WHAT'S NEW AT ICEC USA?

RETURNING TO ORLANDO Now under new management by leading global events organizer Reed Exhibitions, ICEC USA will return to the OCCC in 2021! The OCCC is leading the way to provide safe events and you can view their health & safety guidelines and the ICEC USA guidelines at our website: www.convertingshow.com

NEW FALL DATE PATTERN In a strategic decision that creates greater timing between June's Munich event, ICEC USA's move to Fall will allow manufacturers, suppliers and buyers an opportunity to attend both events and stay more aware of innovation and best practices throughout the year.

VIP BUYER PROGRAM ICEC USA will introduce a hosted buyer program that will identify key decision makers with open projects who are actively looking to purchase new products and services at the show.

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an intuitive interface and user-friendly features that help users monitor up to 10 neutralizing devices and control the system globally or by device.

Static can be an invisible threat, therefore having charge information at your disposal is key for reducing downtime and waste as well as improving quality and safety. The IQ Easy Sensor Bar is an active multi-point sensor bar that offers stand-alone monitoring or closed-loop feedback functionality that work in conjunction with the Control Station. The Sensor adjusts as needed in real time to ensure the lowest possible residual charges are maintained all while being easily monitored via the Control Station.

Another topic on converters'

As the converting industry continues to require cleaner and higher-quality output, a smarter static neutralization system is key to success.

minds is how to reduce the costs and pain involved with static system installation. With the new IQ Power Wireless Link, gone are the days of long costly cable runs. The IQ Power Wireless Link is designed to be a cable replacement kit that wirelessly allows devices to communicate and provides much

easier and cleaner installations. With the elimination of cables, the Wireless Link also allows for static control monitoring in places where mounting was previously unavailable. This communication is all done via Industrial Bluetooth, working independently of and not appearing on WiFi networks.

The need for quality static control and monitoring the static environment is becoming more and more critical. As the converting industry continues to require cleaner and higher-quality output, a smarter static neutralization system is key to success. As the worldwide leader in static control, Simco-ion's application experts offer individualized static solutions to meet the needs of today's converting industry. ■

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CMG Plastics Expands High-Speed in-Mold Labeling Resources

CMG Plastics announced the expansion of its in-mold labeling (IML) capabilities in response to growing customer demand. The company, which currently operates twelve IML systems across two manufacturing facilities, has added a new, high-speed Ilsemann Automation In-Mold Labeling System. The newest IML line is the fourth to be installed at the company's NJ-based facility.

One significant benefit is that IML reportedly yields a 100 percent recyclable package, eliminating the need to physically separate product packaging from traditional pressure-sensitive labels or shrink sleeves that are often not recyclable.

Additionally, quick label changeover capabilities reportedly enable CMG to combine multiple SKU's during a production run giving customers flexibility on order quantities in addition to saving time. Another IML advantage is the ability to produce richer and more vibrant color schemes compared to other decorating methods.

CMG Plastics expects the global growth of IML among major food, beverage, and consumer products companies to continue, especially as advancements



such as Digimarc's SmartLabel technology, an IML integration that enables brands to create unique consumer smartphone-enabled experiences with a brand's packaging are adopted.

For more information, visit <https://cmgplastics.com>.

Full Wrap Labelling For Fish and Seafood

The variety of fish and seafood products is almost endless - as is the wide range of pack types and materials. An effective impression at the point of sale can only be successful however, if the pack design is true to the product and brand, as well as being in harmony with the labelling. MULTIVAC's full wrap labelling offers an innovative solution, which makes a lasting impression in the chill cabinet.

MULTIVAC offers an efficient and attractive alternative with its L 310 full wrap conveyor belt labeller. This flexible model with its patented, servo-driven press-on brushes makes it possible to automatically apply a self-adhesive full wrap label on up to four sides of a pack.

The maximum label width is 500 millimeters, and the labelling output is up to 120 packs per minute. Depending on the requirements, a wide range of thermal transfer or thermal inkjet printers can be integrated into the labeller.

Thanks to the automated labelling process, producers and packers could benefit from a high level of precision, process reliability, and above all throughput. The labeller can be equipped with a zero-downtime function for even higher overall output. Optional label and print inspection ensures, that only perfectly labelled products get onto the market.

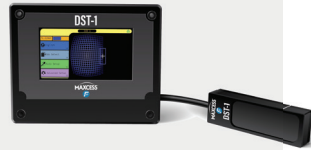
With its wide range of suitable label materials and adhesives, MULTIVAC reportedly offers the right solution for every requirement. In addition to PP and PET labels, materials made of paper or from other renewable sources are available for selection.

There are also practically no limits with full wrap labelling, when it comes to application scenarios and design variants. The possibilities range from a banderole for skin packs through to a complete full wrap envelope with cut-out sections and overlapping, and right up to an all-over label for tray-packed ready meals.

For more information, visit <https://multivac.com>.

Maxcess Releases Enhanced User Interface for Revolutionary Fife Guiding Sensor

Maxcess has announced a new software update to its revolutionary DST-1 Object Recognition Sensor to make setup and material changes faster and more intuitive.



Released in 2019, the DST-1 ushered in the next-generation of guiding sensor technology, allowing ONE sensor to perform the job of many to increase output while reducing scrap, saving you time and money.

The DST-1, a leap forward in guiding sensor technology, reportedly features an advanced object-recognition sensor and color touchscreen operator interface to guide almost any material with ease - even challenging materials and applications that require a wide field of view or have uneven edges.

A single-sided sensor that requires no reflector or external light source, the DST-1 gives customers an advanced tool to guide just about any material, from flexible packaging and carpet to lithium-ion battery webs and more.

For more information, visit www.maxcessintl.com.

H.B. Fuller Launches Compostable Adhesives for Flexible Packaging

H.B. Fuller announced two new compostable adhesive solutions under its worldwide renowned Flextra™ Evolution brand, which offer many differentiated advantages in terms of sustainability goals



and manufacturer benefits. The two new compostable solutions for the flexible packaging market are Flextra Evolution SF1000CP/XR2000CP and Flextra Evolution WB1200CP/XR2200CP.

Flextra Evolution SF1000CP/XR2000CP is a 2K solventless adhesive that offers excellent design benefits, such as outstanding sound dampening and excellent adhesion, to a variety of biodegradable film substrates from bar wrap to snack packaging and much more.

Flextra Evolution WB1200CP/XR2200CP, a water-based two-part system that works best with paper-to-film laminations, is fully compostable according to EN13432, ASTM D6400, and is certified through the Biodegradable Products Institute (BPI), North America's leading certifier of compostable products and packaging.

Compostable adhesives are difficult to formulate without the right polymers and expertise, but the innovation-driven scientists and engineers at H.B. Fuller are highly capable to provide unmatched knowledge and service in collaboration with customers to help them solve their adhesion challenges.

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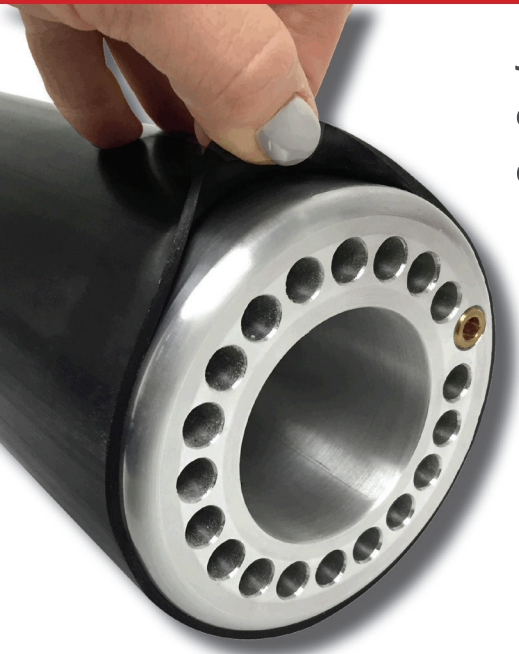
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