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**TROUBLESHOOTING DEFECTS
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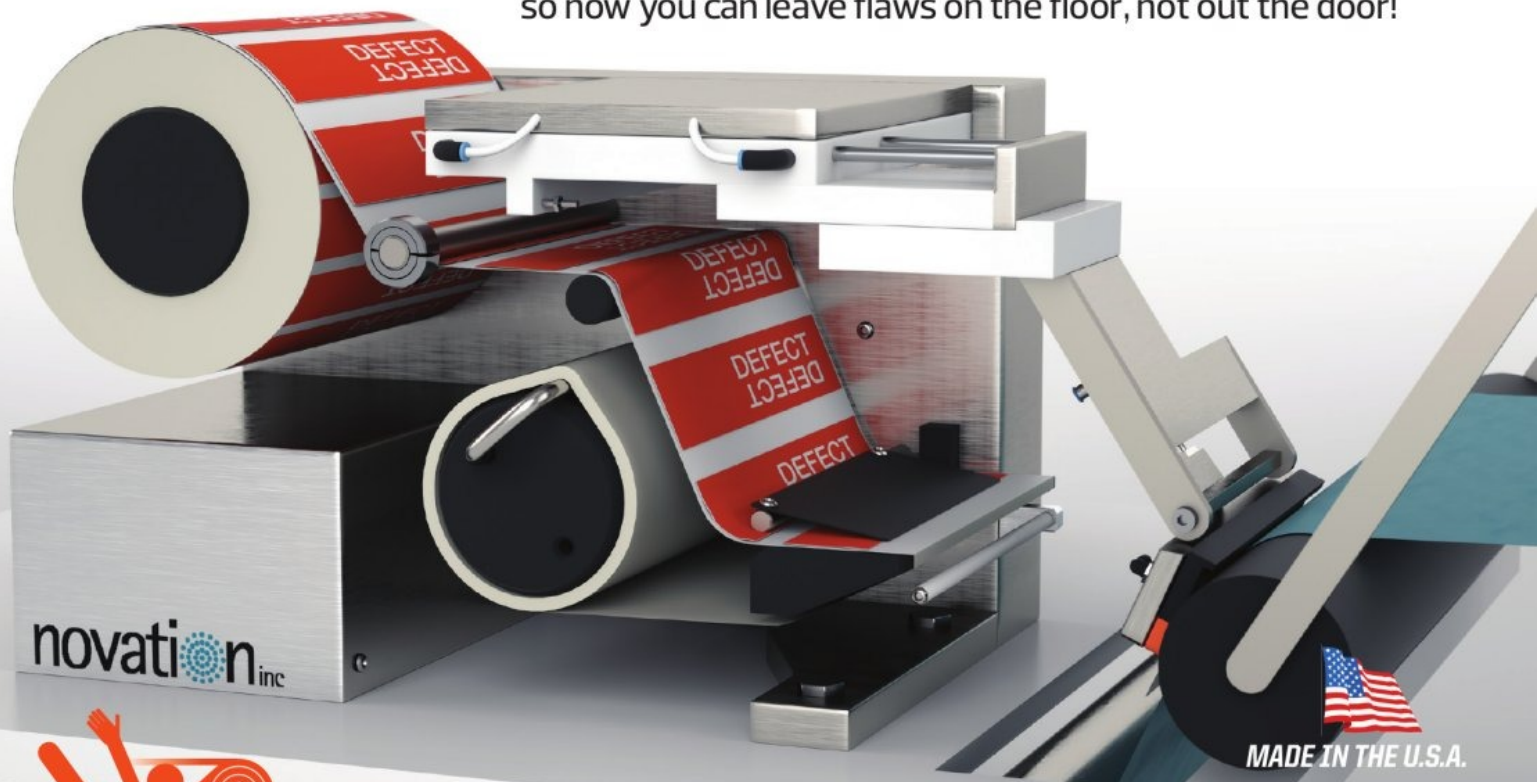
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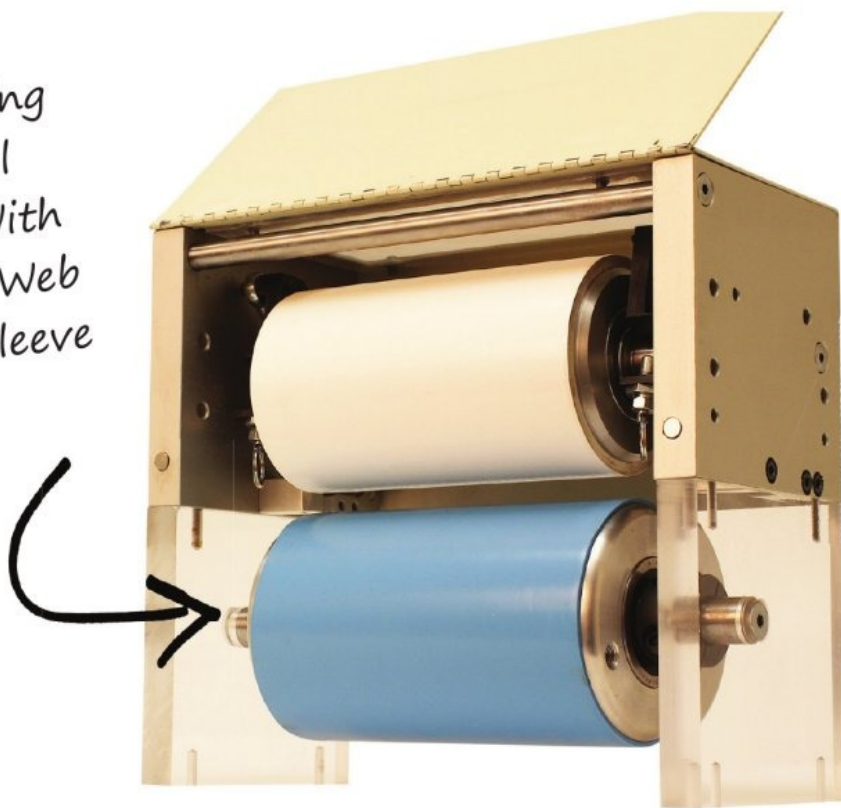
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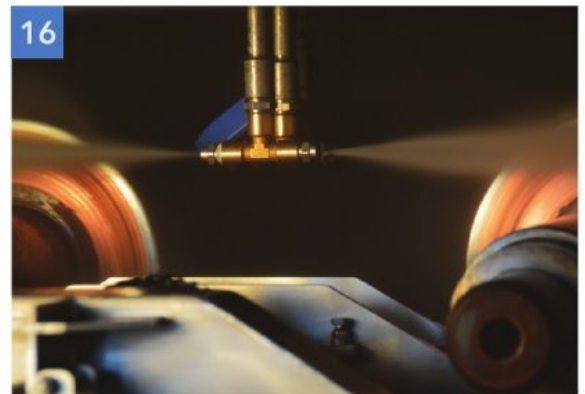


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Converting Trends for Paper



Joan Mantini
Editor

Increasing demand for reusable and environment-friendly paper among the packaging industry is one of the major factors expected to support the revenue growth of the global market, according to the recent report: "Global Converting Paper Market Analysis Trends, Applications, Analysis, Growth, and Forecast to 2028" generated by MarketResearch.biz. This demand is attributed to a low-cost packaging solution as well as nature friendliness of the paper material. In addition, converting paper is frequently used for producing personal hygiene products such as sanitary napkins, tissues, baby diapers, etc., which is a major factor expected to drive growth of the global market.

Among the paper type segments, the coated paper segment is expected to account maximum shares of the global market, and among the end use segments, the packaging and wrapping segment is expected to register substantial growth, owing to increasing adoption of converting paper in the packaging industry.

North America is expected to "dominate" the global market. This is said to be attributed to increasing demand for personal hygiene products and utilization of the converting paper for producing personal hygiene paper products including baby diapers, tissue papers, etc.

Also worth noting is that amid the COVID-19 crisis, the global market for paper converting machines was estimated at \$41.4 Billion in the year 2020, and is projected to reach \$49.7 Billion by 2027, according to the recent report from Research and Markets: "Global Paper Converting Machines Industry (2020 to 2027) - Market Trajectory & Analytics"

The paper converting machines market in the U.S. alone was estimated at \$11.2 Billion in the year 2020, and China is forecast to reach a projected market size of \$10.2 Billion by the year 2027.

Indeed, taking a close look at the influences of 2020 and the impact it will have on years to come, we can project growth. And speaking of taking a closer look, in this issue of PFFC, you can find more thought-provoking articles in areas such as: extrusion coating, surface treatment, cleaning equipment from industry professionals.

"Till next time,

Joan Mantini
Joan Mantini

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AIMCAL Hosts Executive Leadership Conference

AIMCAL has scheduled its 2021 Executive Leadership Conference, March 16-17, at the NASCAR Hall of Fame in Charlotte, N.C.

Designed for senior leadership, the annual members-only conference focuses on operating efficiencies, human resources, and global market research. Other highlights include the annual AIMCAL Awards Ceremony, recognizing Product of the Year, Technology of the Year, and Sustainability Award competition winners as well as members of the second class in the AIMCAL Hall of Honor. For details and registration information, check the AIMCAL website, www.aimcal.org, under Events.

AIMCAL Wants to Hear from You by February 28

AIMCAL wants to hear from members and non-members to identify today's challenges and how the group might assist. Input is being gathered via the AIMCAL Membership Research Study (<https://www.surveymonkey.com/r/ZHSPSQH>). The deadline to participate is February 28.

"Your input is critical to the association and the value that we provide to the industry we serve," says Chris Kerscher, executive director of AIMCAL. The survey opens with questions about individual and company demographics. Kerscher explains, "We are a diverse community. We want to serve all segments of the industry."

The remaining survey questions are designed to show how AIMCAL differs from other associations and reveal potential partnerships with other groups and provide an understanding of why members join, the challenges faced by members and non-members, and where AIMCAL should invest to better serve the converting industry.

Website Update Adds Interactive Features

The AIMCAL website has added interactive features and expanded value for members. "Individual member profiles show their activities within AIMCAL and a history of AIMCAL events," says Tim Janes, membership outreach director for AIMCAL. "The interactive systems also enable direct connection with other members and AIMCAL committees."

Online Communities, similar to LinkedIn groups,



allow members to discuss questions, share best practices, and network. A Member Log-in provides access to resources and the interactive functionality of the Member area. Members may view 200+ technical videos, conference presentations, and webinars on AIMCAL TV, submit a question on Ask AIMCAL (and see previous questions and answers), post jobs, search the *SourceBook* directory, submit member news, join technical committees, attend Converting School courses, register for live webinars, and access other resources. Information may be found on the AIMCAL website, www.aimcal.org, click on Membership.

Orlando Hosts AIMCAL R2R USA Conference

The 2021 edition of the AIMCAL R2R USA conference will be held October 19-21 in Orlando, Fla. The annual technical conference, dedicated to roll-to-roll (R2R) technologies, features presentations on the latest developments in metallizing, coating, drying, laminating, and web handling and applications in a wide range of markets including packaging, printed electronics, photovoltaics, and optics.



AIMCAL Presents Hybrid Converting School Courses

AIMCAL will host Web Handling Month in February and Web Winding Month in March. The hybrid Converting School courses feature online content accessed on-demand during the week and a two-hour live Zoom session with the instructor, Dr. David



Roismum of Finishing Technologies, each Friday. These public sessions allow participants to ask questions and support group discussion. On the final Friday, each participant can schedule a 15-minute private meeting with the instructor.

Students who meet all course requirements receive a Certificate of Completion. The cost per course is \$699 for members and \$899 for nonmembers. Information is available on the AIMCAL website, www.aimcal.org, click on Converting School.

Live Webinars Focus on Recruiting and Multilayer Coating

AIMCAL's live webinar schedule for the first quarter of 2021 includes "Recruiting Talent in Packaging," presented by David Peterson at 11 a.m. EST on February 24, and "Simultaneous Multilayer Coating," presented by Mark Miller at 11 a.m. EST on March 3.

Live webinars are open to members and non-members. To register, go to the AIMCAL website and click

Events. AIMCAL webinars are recorded and may be accessed on-demand by members by signing in on the AIMCAL website, www.aimcal.org, and clicking on AIMCAL TV.

Join Now for AIMCAL Membership through End of 2021

All employees of organizations that join AIMCAL now, receive access to all member resources for 2021. Member benefits include an individual profile for each employee, online member "Community" forum, access to the AIMCAL TV Network, committee involvement, technical training, marketing, networking, events, and market research reports, as well as inclusion in the *AIMCAL SourceBook* directory and the opportunity to present live webinars.

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Troubleshooting Defects in Extrusion Coating

By E. J. (Ted) Lightfoot, Ph.D., Contributing Writer

Extrusion coating is typically the most cost effective coating method for long runs of melt processable material and tends to be used for commodity applications. Quality plays a different role for commodity products than specialty products. True commodity markets are hypercompetitive. Where premium pricing of specialty products depends on differentiated features, any differential pricing on commodity products usually reflects quality.

Defects can represent an

excursion from normal operation or reflect the limits of your process capability. In the first case, your goal is to get back to normal operation. Troubleshooting needs to be quick, efficient, and easy to implement. Projects to reduce the normal level of defects often take longer and will be discussed separately.

Operators should have a troubleshooting guide that gives a list of concrete actions they can take to resolve the “usual” defects. The guide should give boundaries

to ensure safe operation and prevent damage to the equipment. You also want to document their efforts and limit how much they try before seeking help: troubleshooting gets expensive. The most comprehensive guide to start with is the TAPPI Ultimate Web and Roll Troubleshooting Guide. Not only will this help you deal with the usual defects, it can help with some unusual defects as well.

But there are three issues with published guides. First, they contain only public knowledge:

Table 1- Sample top level defect classification scheme

ATTRIBUTE	CATEGORIES					
Geometry	Space filling (pattern)			Linear	Spot / shape	
Manifestation	Thickness variation	Inclusion	Void	Other visual	Property	Nonplanarity
Map location	Regular repeating		Lane		Random	
Depth	Top of coated surface	Coated layer (which?)	Lower interface	Base	Coversheet	
Composition	Same as bulk		Ingredient in the mix		Contaminant	
Directionality	MD	TD (CD)		Oblique	None	
Detection geometry	Transmission (bright field)		Transmission (dark field)		Reflection	
Onset	Gradual	Sudden		Start-up		Sporadic
First detectable	Mix	Coating	Drying	Laminating	Off-line testing	

more is known than has been published. Second, these guides are generic: your guide should be specific to your products and your line. Finally, while experienced people are likely to get the right diagnosis when consulting a guide, the greener people are, the less likely that becomes. The cost of pursuing a missed diagnosis can be high.

A more robust approach to dealing with unusual defects, given today's high employee turnover, is a database of quality issues keyed to the attributes of the defect. Table 1 shows a basic defect classification scheme (your markets may require other attributes, categories, and layers). There are three reasons all quality excursions should be characterized and recorded in a database. First, the database provides continuity: an experienced engineer may remember a similar situation from years ago, a new hire cannot. Second, the database aids diagnosis: the questions and characterization you need to put the problem in the database will lead you to root cause and tell you how

A more robust approach to dealing with unusual defects, given today's high employee turnover, is a database of quality issues keyed to the attributes of the defect.

to resolve the majority of defects. Third, the database helps management track the cost of poor quality (so all incidents should go in the database).

The database can show all similar previous cases, see what was tried before and what worked. For example, a rough pattern on the surface could be melt fracture or sharkskin. An experienced eye might know which; a new engineer may not. Should you add a slip agent or slow the line down? Slowing down will eventually work – but productivity is critical too. You can experiment, or, if you have a database, you may find out that slip additives have been tried before and never worked with this

resin, the problem is correlated to polymer lot and speed. That would set you a step ahead on a different path.

The first question to ask when figuring out what happened is “what changed?” That can mean simple detective work (checking lots etc.). But there are other tools that find and alert you to changes before you get into trouble. The sooner you become aware of a shift, the less yield loss you are likely to take.

Statistical process control can be done on paper, but SPC software packages are available to save labor. Techniques like CUSUM (cumulative sum) provide early warning as the process starts to shift.

The remaining options discussed here are sometimes called “advanced process analytics”. Process historians monitor process settings and conditions (from the DCS or PLC) allowing you to compare how the product is running today with how it ran in the past. There are also measurement techniques that can alert you to mechanical issues. Vibration

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Usually, the diagnostic questions and database will connect you to helpful history and give enough understanding to resolve the unusual defects.

analysis is very effective at diagnosing wear in bearings or other rotating equipment. You can relate the frequency of any vibration to specific pieces of equipment (e.g., bearings). Machine direction gauge measurements can also be passed through a Fast Fourier Transform to produce a “spectral signature” for the line running a given product. A change at some frequency offers the same warning as vibration analysis, but is monitored continuously. The normal on-line instruments for product release are also useful. Transverse (cross) direction gauging will often detect specific gauge defects (like “spiking” – something blocking the flow inside the die). Of course, on-line optical inspection can be used to control chart defect levels (although you need to set them up properly to prevent a rash of false alarms), show real time images of the defects and where they occur (e.g., are they in a lane?).

Does this always work? No. Usually you can control the “usual” defects with a troubleshooting guide. Usually, the diagnostic questions and database will connect you to helpful history and give enough understanding to resolve the unusual defects. Usually, the advanced process analytics will pinpoint problems early. But sometime, none of this works. In that case, you need to move on to the techniques for defect reduction projects (which will be discussed in a future article). ■

ABOUT THE AUTHOR

Dr. E.J. (Ted) Lightfoot has worked in coating, drying, laminating, and film casting for over 35 years. He has experience in R&D, plant support, as a Six Sigma Black Belt for Growth, and application development (helping customers develop processes and structured products). He is a consultant, writer, speaker, and gives short courses. He is the Chapter Editor for “Extrusion Coating and Lamination Defects”, in the *Ultimate Web and Roll Troubleshooting Guide*. Ted can be reached at www.tedlightfootllc@gmail.com. www.TedLightfoot.com.

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Corona or Plasma?

Which Surface Treating Technology is Best for my Application?

By Mark Plantier, Contributing Writer

Surface treating in the converting industry is used to improve the adhesion of engineered films and foils that would otherwise be unreceptive to bonding with inks, coatings, and adhesives.

Enercon's Vice President of Application Engineering Tom Gilbertson cites Enercon's pioneering innovation in each of these areas for pushing the capabilities of each technology from a performance, efficiency and economic standpoint. "What we've found over decades of engineering equipment is that understanding the application and converter's objectives will lead you to the right technology. And it's important to note that within a technology category such as corona or plasma, there are many design considerations which can make or break an

application."

"The key is defining the application properly so all components designed into the system add value. This is how Enercon partners with customers to minimize our customers' total cost of ownership," says Enercon's Vice President Engineering Mario Leonardelli.

Corona Treaters

Corona treating is the most common technology used by converters and for good reason. It offers the most economical form of treatment and is effective on almost all types of substrates. In fact, the general rule of thumb is that if corona can get the job done, you should use it.

The amount of corona treating needed, often measured

in Watt Destiny, is dependent on several application variables including material, additives, film width, area of film to be treated, line speed and the goal of treatment. Inherently, materials respond differently to the same level of treatment (Figure 1). So, a treater manufacturer's experience becomes very important in specifying the right solution for the application.

What converters should recognize is that corona treaters and the corona they produce is not created equal. If you look at corona generated by a metal electrode and silicone covered ground roll you will see a very filamentary discharge (Figure 2). For many applications, this is perfectly fine and does not produce a functional difference, but for some it will.

Figure 1: Dyne Level Change with Treatment Level of 1.1 WD

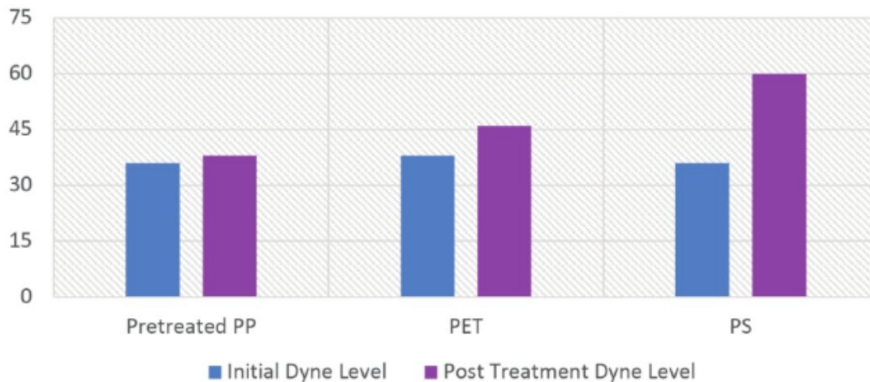


Figure 2

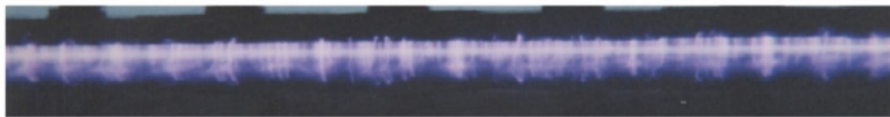
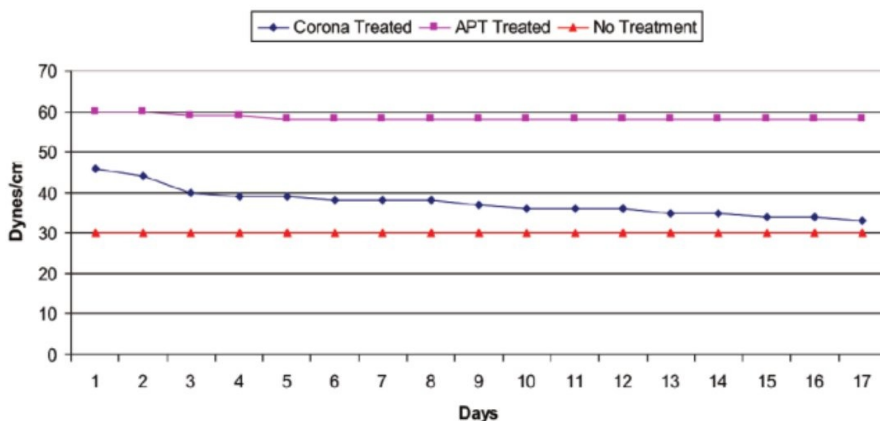


Figure 3



Figure 4: Longevity of Treatment



The filaments in the discharge can damage some films and produce inconsistent treatment. It should be noted that metal electrodes cannot be used when treating metallized film and foils.

A ceramic electrode produces

a less filamentary discharge. Enercon has pioneered the development of High Definition corona, which optimizes the corona discharge with high-powered ceramic electrodes and a special ground roll covering.

As you can see (Figure 3,) the corona produced by this design is uniform. This technology is recognized for its ability to consistently treat at high levels while minimizing chances of pinholing, film wrinkling and backside treatment.

Plasma Treaters

For materials that are unresponsive to corona treating, atmospheric plasma treating is often considered. Like corona, plasma is the electrical ionization of a gas, however, it is produced at much lower voltage levels and temperatures. Plasma treaters create a glow discharge with a smooth, undifferentiated cloud of ionized gas with no visible electrical filaments.

Plasma treating provides high and long lasting treatment levels by ionizing gases to impart functionality on surfaces. Plasma treaters are used for applications where other treatment methods are incapable of producing the desired results. In figure 4, you can see how plasma treatment outperforms corona treatment on a polymeric film in terms of higher and longer lasting treatment levels.

These systems carry a higher initial cost than corona treaters due to their unique electrode designs and advanced gas control capabilities. They are also more expensive to operate with consumable costs of the gases used to create the plasma.

As a pioneering innovator of plasma technology Enercon has earned patents for its groundbreaking designs and are responsible for bringing the most advanced atmospheric plasma designs on the market today. The company's engineers are noted for breaking barriers for atmospheric

plasma treating line speed and minimizing gas consumption for economical operation.

Flame Surface Treaters

Flame surface treaters are the least commonly used on converting lines, but nonetheless are very useful for certain high speed applications. They are used on many paperboard applications and can also be effective at treating aluminum. Enercon's intense flame chemistry burns off fibers on paperboard prior to extrusion coating applications. For certain grades of aluminum, flame can be used to remove oils from the substrate. For these applications, it's critical to specify the right ground roll diameter and treatment levels to minimize any wrinkling. Key to repeatability with flame treatment is ensuring your supplier offers an advanced combustion control design and high velocity drilled port burner.

How to know which is best before investing in your next treater

Figure 5: Overview of Technologies

APPLICATION	TECHNOLOGY
Converting	<ul style="list-style-type: none"> • Most use ceramic electrode corona treaters with bare or universal roll • High speed foil converting and metallization use flame • Extrusion coating and laminating rely on ozone generation, flame, corona or a combination of all three • Difficult to treat and engineered material applications use Plasma
Extruding	<ul style="list-style-type: none"> • Most standard width applications use covered rolls with either fixed width or segmented electrodes for lane treating • For high speed or ultra-wide BOPP, PET, OPP, PE and co-extruded film applications flame, corona or a combination of both treatments are generally used • Difficult to treat and esoteric applications use Plasma
Paperboard/PE coated paperboard	<ul style="list-style-type: none"> • Most use flame to raise surface energy and burn off unwanted fibers
Difficult to treat (and surface functionalization)	<ul style="list-style-type: none"> • Plasma is used for engineered films, papers, foams, nonwovens, wovens, fibers, metals & powders. In addition to being able to raise the surface energy this technology also functionalizes surfaces.

If you are working with a new material or application, the best way to put your application to the test is to run a laboratory trial. In Enercon's lab, converters have access to each type of surface

treating technology for an unbiased comparison of results which can support their decision to invest in technology and equipment design that will optimize their results. ■

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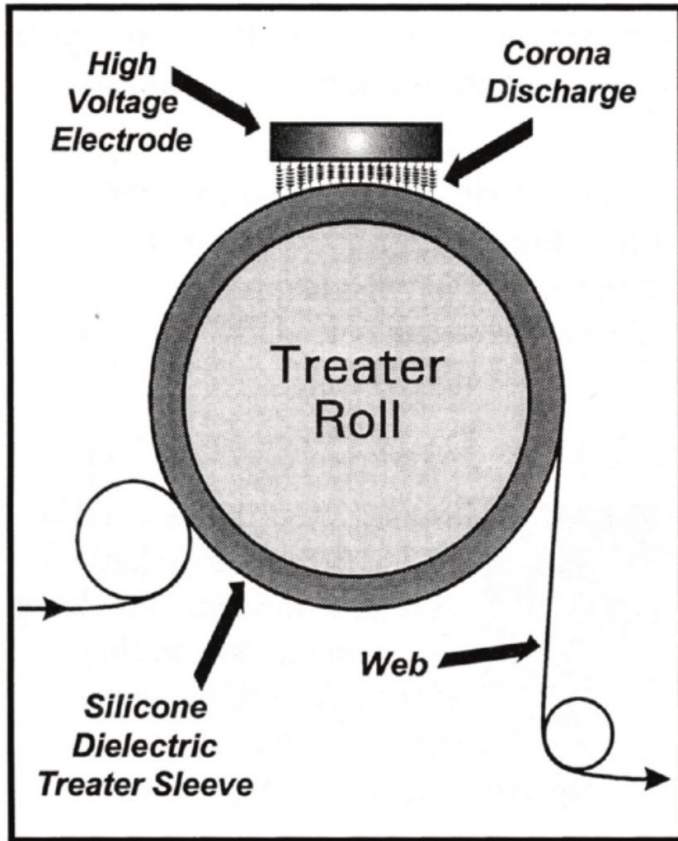


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96402	4.0"	102 mm	95 mm	Orange	.080" (2.0 mm)	\$2.35
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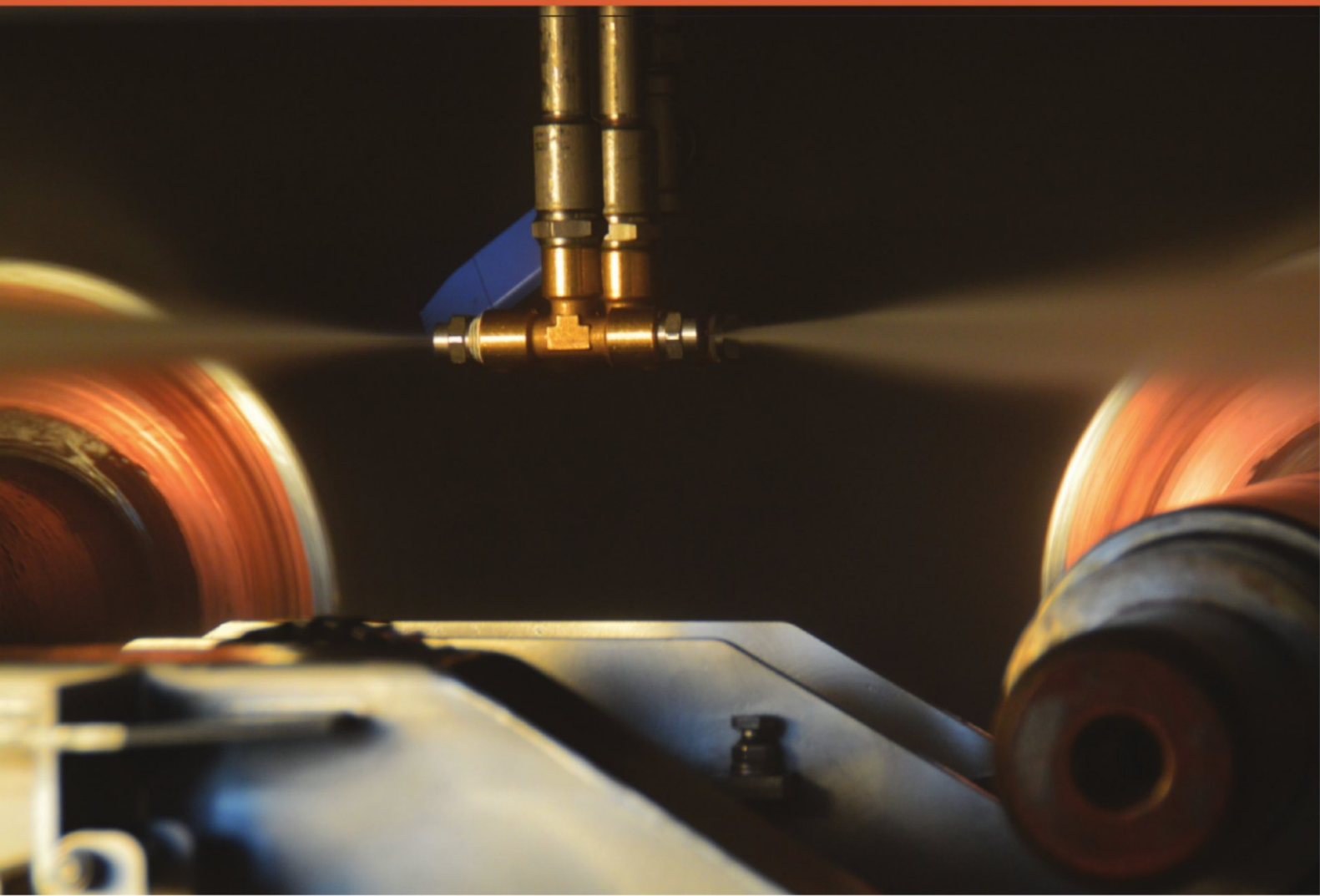
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cleaning?

3. Is a lack of clean cylinders increasing the press downtime between jobs?
4. Are dirty cylinders affecting your print quality?
5. How can I effectively clean my cylinders while maintaining a healthy, eco-friendly and sustainable process?

The gravure cylinder cleaning process

The simple automation of the cleaning process is the first

step to a more sustainable work environment.

Based on liquid and high-pressure water, this quick and gentle cleaning process leaves the cylinders totally clean and ready for immediate use. Total cleaning time ranges from 10 to 20 minutes and is gentle enough to allow for daily cleaning without causing any wear and tear to the roll.

Cylinder cleaners work with environmentally friendly cleaning liquids, which are specially made for the deep-cleaning of cylinders with all types of ink. There is also



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Sonic Solutions has developed custom cleaning systems for the HP Indigo 20000, HP Indigo 30000 and Pagewidth T240 exclusively for HP and their customers.



The PLC-controlled machines can be equipped with rotating brushes, which make it possible to clean gravure cylinders in the machine.

an option to use your own solvent blend if you desire.

The water from the high-pressure rinse is automatically led directly to the drain, then to a tank for re-use or to one of our water treatment units. The water consumption is only ten liters for each roll meter.

The PLC-controlled machines can be equipped with rotating brushes, which make it possible to clean gravure cylinders in the machine. The brushes ensure in-depth cleaning of the engraved parts of the cylinder thus leaving it completely clean on all surfaces. The machines can be equipped with rotating brushes for cleaning of gravure cylinder ends, where there is often a heavy build-up of ink, which is difficult to remove.

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Automated cleaning systems reduce solvent and liquid consumption, while providing effective and consistent cleaning.

The hard rotating and oscillating brushes will remove all ink from the shaft and end of the cylinder, making the cylinder clean on all surfaces. The cylinder can then be taken to production, storage or re-chroming without

any manual treatment.

How the process is sustainable

There are many ways that gravure cylinder cleaning is sustainable

The overall goal is to reduce solvent and liquid consumption, all while providing the most effective consistent cleaning result.

with automated cleaning systems. The overall goal is to reduce solvent and liquid consumption, all while providing the most effective consistent cleaning result.

It is an established fact that manual cleaning is one of the LEAST sustainable ways to clean. Manual cleaning provides inconsistent and inefficient results.

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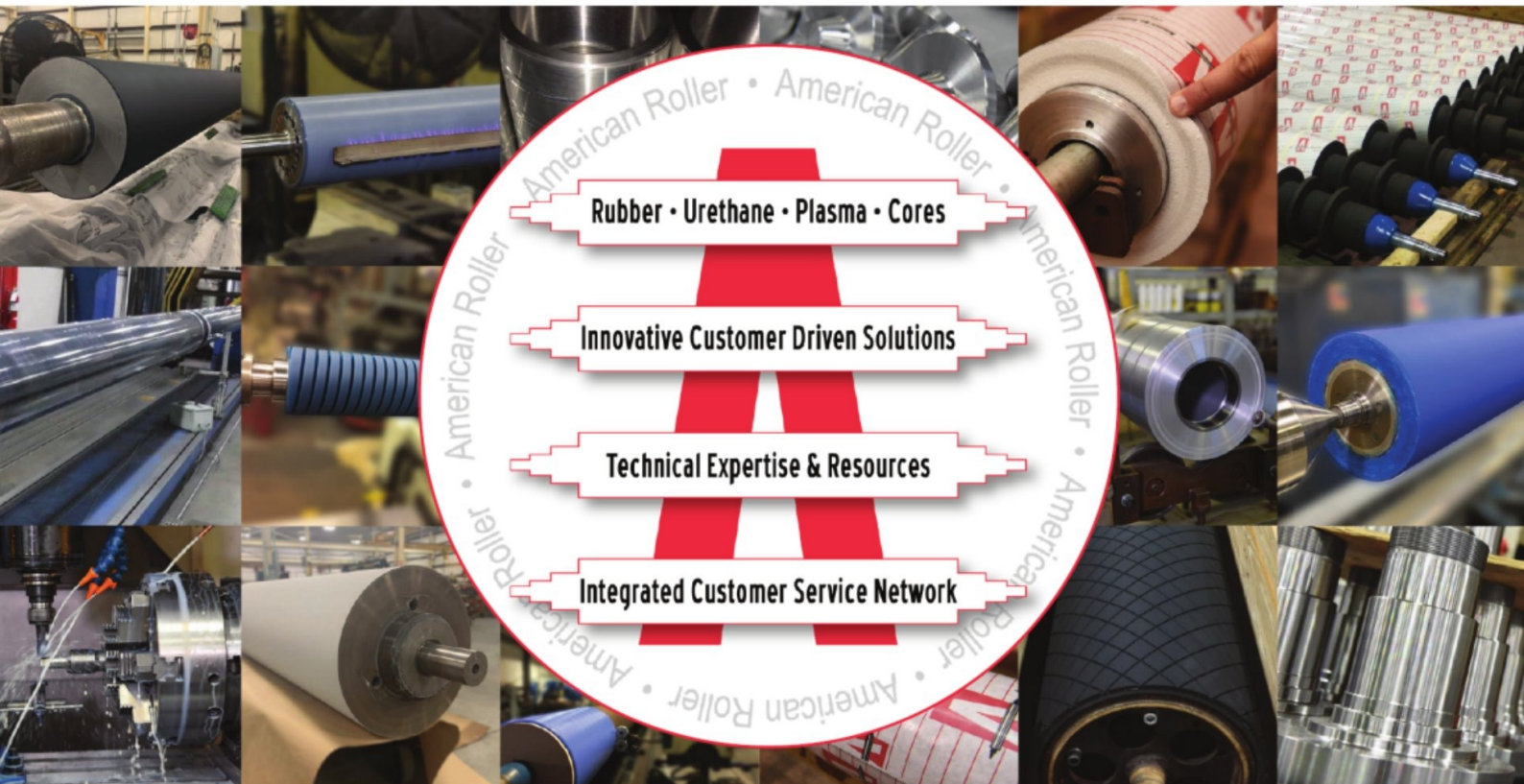
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Roller Coverings

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Demand a Solution, Not a Product.

More importantly, health and safety aspects are not heeded in manual cleaning. Often there is a build-up of ink that only solvents can remove with manual cleaning. It is highly dangerous for humans to have prolonged interaction with these solvents.

By automating the process using environmentally friendly cleaning liquids in addition to the rotating brushes, the end result reduces the environmental footprint substantially. Not only is the water consumption low for cleaning each roll as well, it can be re-used or placed in a water treatment unit.

An answer for bigger cleaning jobs

By automating the process using environmentally friendly cleaning liquids in addition to the rotating brushes, the end result reduces the environmental footprint substantially.

But, what if you need to clean dozens, even hundreds of gravure cylinders every day? How can that be sustainable and environmentally-friendly?

By automating a job of this size, it not only becomes more sustainable, it radically increases the print production. Each is

custom made, and provides a fully-automated system. These systems are built in a modular concept, and is customized exactly to fit your purpose.

Just like all other cleaning systems, the quick and gentle cleaning process leaves the cylinders clean and ready for immediate use right after cleaning. This cleaning process does not cause any wear and tear to the cylinder, even with daily cleaning. With a standard wash and rinse system, you can clean 8-12 cylinders per hour. All cylinders are cleaned by using an eco-friendly cleaning liquid, then rinsed with water at high pressure and finally an air stream removes excess water.

The cylinders can be

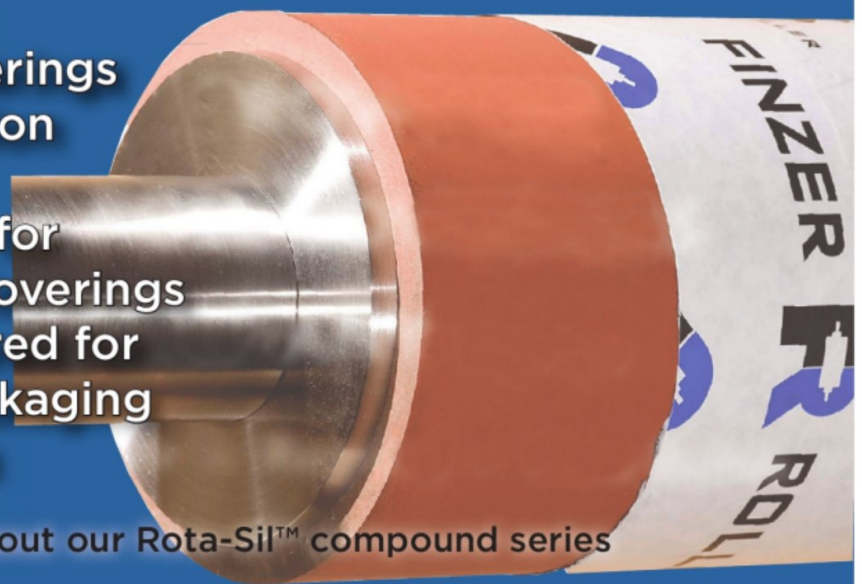
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transported from the printing machine to a multi-cylinder cleaner on a special designed trolley with a cylinder carriage. The carriage is loaded from the trolley into the loading station and automatically transported through the cleaning process.

Case studies are overwhelmingly positive

Customers that have automated their gravure cylinder cleaning process overwhelmingly have positive results, whether it's cleaning a dozen or hundreds of cylinders a day.

- Automatic cleaning of cylinders — with the ability to clean up to hundreds of cylinders a day, converters

have increased production and decreased downtime.

- Labor reallocation — the absence of manual cleaning frees up labor to do more efficient and productive tasks.
- Supplies expense down nearly 50 percent — huge reduction in cleaning supply costs when process is automated.
- Cells deep cleaned — process improvement that is gentle enough to clean the cylinders every day.
- No longer using solvents to clean — this creates a much safer environment for employees without sacrificing any cleaning quality.
- Employee safety improved — a most important result.

There is no need to sacrifice print quality and cleaning efficiency because of environmental concerns. Converters with automated cleaning systems can continue to maximize production and maintain a low impact on the environment. They do not have to be competing notions anymore. ■

ABOUT THE COMPANY

Flexo Wash is a cleaning solutions company based in Denmark, specializing in cleaning equipment and eco-friendly cleaning liquids for the flexographic and converting industries.

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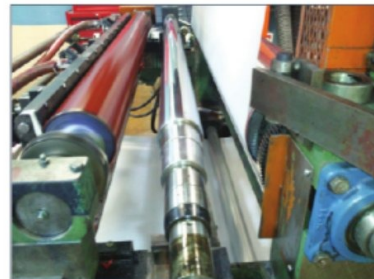
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Mondi's Sustainable Packaging Hits the Right Note for Orkla's New Climate-Smart Food Launch

Mondi has created three sustainable packaging products for a brand-new range of vegan products from food manufacturer Orkla.

The branded consumer goods company worked closely with Mondi to create sustainable, high-performance packaging for the Swedish launch of its Frankful® plant-based Tex Mex range - soft tortilla wraps, tortilla crisps and taco spices.

Each bespoke packaging solution has been designed to provide premium product freshness for consumers and ensure a standout appearance on the shelf for retailers. Mondi supported Orkla's sustainability agenda, which reportedly includes launching healthier food products, reducing food waste and offering environmentally friendly choices.

The three Frankful products benefit from



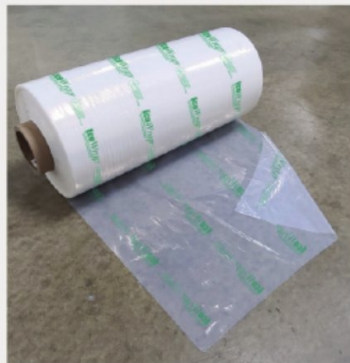
tailor-made packaging that extends shelf life, balances portion control and is recyclable.

- Original soft tortillas will be one of the first food products to be packaged in Mondi's innovative BarrierPack Recyclable, which reportedly uses a high-barrier, lightweight mono-material and a reclose tape to keep the food fresh in its original packaging and prevent waste;
- Taco spice mix is packaged in a paper-based laminate, created from FSC™ certified paper and a film made from renewable resources. The high paper content reportedly ensures suitability for Swedish recycling paper streams; and
- Tortilla crisps are kept crunchy and fresh, thanks to Mondi's metal-free high-barrier laminate, which makes the new solution completely recyclable.

For more information, visit www.mondigroup.com.

Eco Wrap: World's First Compostable Industrial Strength Machine Grade Stretch Film, Patent Pending

Eco Wrap®, the world's first compostable industrial strength machine grade stretch film, is here. The latest formula uses a certified compostable resin plus a tackifier additive to make an industrial strength compostable stretch wrap that can be used on most standard automated stretch wrap equipment.



Eco Wrap users could benefit from material/waste reduction in the following ways. First, most applications requiring three wraps of standard film can use two wraps of Eco Wrap without sacrificing strength or protection. Second, Eco Wrap is commercially compostable according to ASTM D6400.

Eco Wrap may allow its users to avoid tariffs, fines, and tip fees in areas where polyethylene is

prohibited or restricted. Eco Wrap is shelf and curb stable and will retain its integrity until disposed of properly.

There are many exciting ways to make use of Eco Wrap as a "greener" packaging option. Eco Wrap can be used anywhere a conventional stretch film is needed.

Applications include but are not limited to the following:

- Agriculture bundling (e.g., hay bales and lumber);
- Corraling of goods for storage and shipment;
- Pallet wrapping;
- Luggage wrapping at airports;
- Packaging construction materials; and
- Transporting furniture.

Eco Wrap works on most existing automated machines and is easily applied by adjusting the tension.

For more information, visit www.cortecpackaging.com.



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Siemens Introduces Sinamics V20 Smart Access Web Server Module

Siemens announced the launch of its Sinamics V20 Smart Access web server module, designed to mount directly onto the drive, transforming a mobile device or laptop into a virtual operator panel for drive control. By providing a wi-fi hot spot, the wireless connection on this module facilitates setup, programming, commissioning, production monitoring and maintenance on a variety of machines and production equipment.

A simple, embedded graphical user interface (GUI) reportedly enables easy use of the Sinamics V20 in every phase of operation. No separate app is required, nor is a written operator manual needed, making operation of this new server module and subsequent drive control highly intuitive and easy-to-learn.

Smart Access provides convenient access to the Sinamics V20, up to 100 meters away, even when the drive is located in difficult-to-access installations. Utilizing WPA2 security, the web server module



reportedly offers full flexibility with both iOS and Android operating systems, along with commonly used HTML5-capable web browsers.

A built-in, multi-color LED provides quick communication status readout. Security features could enable limit/restrict operator access and control functionality.

In use, the Sinamics V20 Smart Access module requires only a few steps to set-up and no installation or download of additional software is needed. The onboard Quick Set-up Wizard could provide users a fast and easy commissioning procedure, enabling all of the following:

- Motor data can be entered and checked;
- Connection macros for digital inputs/outputs can be activated;
- Application macros can be selected and activated for pumps, fans, compressors and other devices; and
- Common and frequently used parameters on the drive can be set for motor start, acceleration, deceleration, min./max. speed, and more.

Smart Access reportedly allows monitoring of the drive status including speed, current, voltage, temperature and power, as well as drive servicing, with an overview of alarms, faults and individual values. Fault codes can be transferred via e-mail to a local service provider, while the immediate status of all digital and analog inputs and outputs can be checked at a glance.

Parameter adjustment, motor test functions and full data back-up, storage and sharing with fast firmware downloads can all be accomplished via the web server.

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

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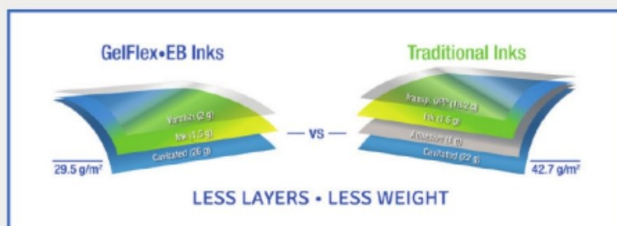
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INX introduces GelFlex-EB inks for Flexible Packaging

INX International Ink Co. announced it has introduced GelFlex-EB gel-based inks for CI flexo printing. The surface print ink system has print quality similar to gravure and provides a cross-linked, durable ink film that eliminates the need for a lamination layer, reducing costs and total package weight. These inks produce print designs suitable for food packaging and other consumer applications.

In addition to food packaging, GelFlex-EB inks can be used for household, industrial, outdoor, and pet food and pet care products.

As a gel-based ink, GelFlex-EB is sufficiently fluid for CI flexo printing and thickens quickly for effective, high-speed wet ink trapping. As an option, gloss, matte, and other decorative or special effect coatings can be applied in-line. The combined structure is cured by a single EB dryer at the end of the press to create a cross-linked polymer matrix. Overall, using GelFlex-EB instead of traditional inks can



result in a 30 percent weight reduction of the lamination layers.

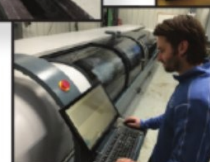
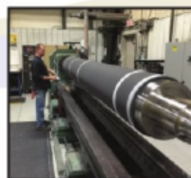
The benefits of GelFlex-EB extend to better print quality. A finer line screen and lower BCM anilox counts result in excellent tonal value and higher line screen plates and contrast range. In addition to more predictable print quality, printers will find smooth vignettes and solids, higher details in full color images, and detailed brightness in high light zones.

For more information, visit www.inxinternational.com.

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Meech Announces Launch of Smartcontrol Touch

Meech has formally unveiled its newest remote monitoring solution, SmartControl Touch. An advancement of Meech's SmartControl device, the new unit allows users to monitor, control and adjust the performance of multiple connected Hyperion ionising bars and sensors via an integrated touchscreen, or remotely via a mobile phone, tablet, or desktop.



control up to 30 devices.

Fast and easy installation means SmartControl Touch could fit in seamlessly with operations. It is simple to use for operators, offering a user-friendly interface that requires minimal training.

Changes can be made quickly and easily, and with voltage and distance sensor compatibility,

“SmartControl Touch has been designed in line with the growth of Industry 4.0 technology, which is helping businesses maximize productivity and quality of output,” said Adam Battrick, sales director, Meech International. “It’s an advanced monitoring and controlling device that includes a 10-inch integrated touch screen and data logging, as well as being compatible with Meech voltage and distance sensors – so monitoring the performance of our Hyperion static control bars is easier than ever before.”

SmartControl Touch reportedly offers more accurate neutralization of all charges on materials. Data logging also provides graphic representation of performance, which could be exported for additional analysis.

SmartControl Touch has the capacity to connect up to six devices, with an additional 12 per expansion unit. In total, SmartControl Touch can monitor and

“Like all Meech products, SmartControl Touch has been designed in response to feedback from the industry,” added Battrick. “Static charges have always been a threat to productivity for many manufacturing and converting sectors and SmartControl Touch is yet another innovation from Meech designed to keep unwanted static under control and ensure smooth-running and safe production lines.”

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



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