



www.PFFC-Online.com

rdgmedia

JULY 2021

THE KEY TO KEEPING YOUR CORONA STATION IN FULL PRODUCTION 10

ALSO IN THIS ISSUE

THE BENEFITS AND POTENTIAL OF ANILOX CONTROL 18

Q&A: STATIC ELIMINATION 24

AND MORE!



American Roller

A True One-Stop Shop That Delivers Innovative Solutions

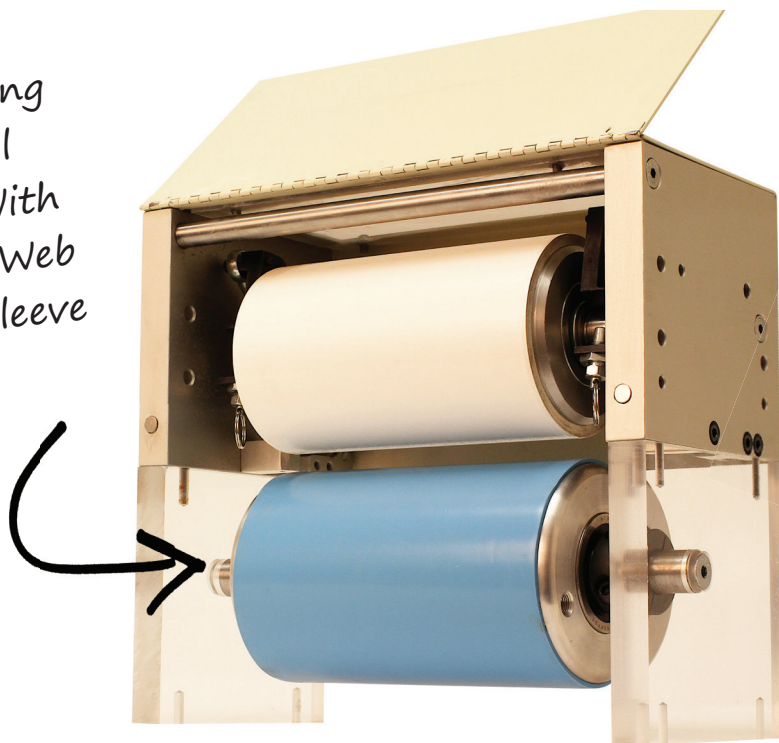
- Cores
- Coatings
- Coverings
- On-Site Services
- and more...

Demand a Solution, Not a Product.

www.AmericanRoller.com

HIGH QUALITY WEB CLEANING YOU CAN AFFORD

Your Existing
Idler Roll
Covered With
JemmTac Web
Cleaning Sleeve



Our Machine Bolts
onto Your Existing
End Frame

Pictured: JemmTac Component Style Web Cleaner mounted over an existing machine idler roll, covered with a JemmTac™ Web Cleaning Sleeve.

Now available for purchase ONLINE!
Order yours today!

Limited sizes available for purchase online. Go to www.jemmco.com for more information.

CALL TODAY to speak to one of
our expert product specialists!
262-512-9559 • www.jemmco.com

Jemmco, LLC

nordmeccanica events

The (live) showcase of innovations

Episode 04

BEING SIMPLE, BEING LINEAR.

*An insight into the evolution of innovation
in coating and lamination technology.*

Episode 4 broadcasted on May 25th
is now available in download streaming at
www.nordmeccanicaevent.com

Registration required



A series of live events to introduce innovations,
promoted by the company that developed the concepts behind the modern converting machinery technology
Episodes are available live on the day of the event or in download on the Nordmeccanica website



The leader in Trim Cutters

If you can slit it we can cut it!

- ▲ Custom Designed Systems
- ▲ Total Trim Cutter Refurbishment
- ▲ Replacement Knives
- ▲ Knife Sharpening

BloApCo®

BloApCo.com • 800-959-0800 • parts@bloapco.com

TABLE OF CONTENTS

10 MAINTENANCE: THE KEY TO KEEPING YOUR CORONA STATION IN FULL PRODUCTION

Learn the best practices in maintaining corona treatment systems for optimal performance, with a special section devoted to overcoming the effects of summer's heat and humidity.



14 CORONA TREATING PRETREATED FILMS PRIOR TO CONVERTING

Uncover the best practices for converters in corona treating pretreated films prior to converting.



18 THE BENEFITS AND POTENTIAL OF ANILOX CONTROL

Discover how new technologies are leading to an improved ROI on the aniloxes, the cleaning system and the press.

20 HOLOGRAPHY'S CONTINUED ADDED DIMENSION FOR PACKAGING

Learn why holography remains an extremely versatile and flexible technology.

DEPARTMENTS

4 EDITOR'S NOTE

6 AIMCAL ACTIVITIES

24 ROUNDTABLE Q&A:
STATIC ELIMINATION

29 AD INDEX



BIG

System that can clean sleeves up to 70" long

or

SMALL....

System that cleans narrow and medium web rolls



All our anilox roll and sleeve cleaning systems reflect:

- Preset functions that allow you to safely clean the highest line count anilox.
- Plug and play external power generators that can be easily replaced
- Stainless steel construction for longest durability
- Over 20 years of proven industry experience
- Fast friendly service that only a family run business can provide

...we can clean them all!



Call or e-mail us for more information

877.654.7800

customer_service@sonicsolutionsusa.com

www.SonicSolutionsUSA.com



Graphics Experience Center

Alpharetta GA

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

It's Showtime



Joan Mantini
Editor

The Adhesives & Bonding Expo, and the co-located Foam Expo is back this month. We are officially welcoming back one of the first large gatherings after the government mandated shut-downs in the state of Michigan. An anticipated opportunity to meet the adhesives and bonding supply chain once again. An in-person chance to check out high-performing material bonding technologies, including surface treatment, curing, bond inspection and all adhesive formulations. A face-to-face chance to learn about new market

opportunities, the latest bonding processes for binding any material, and automated systems that enable robust and precise material bonding in modern assembly lines.

The Adhesives & Bonding Expo is aligned to offer expert insights from high-level technical representatives from across the adhesives and foam markets at Suburban Collection Showplace in Novi, Mich., on July 13 – 15.

As a sign of the global pandemic coming to an end, this conference is a great opportunity to:

1. Re-connect with your peers in the industry;
2. Meet buyers and suppliers; and
3. Gain knowledge on the latest technology developments.

According to the conference overview on www.adhesivesand-bondingexpo.com, Adhesives & Bonding Expo and Foam Expo Conference plans to bring together high-level representatives from a cross-section of the entire foam and adhesives supply chains to best answer your questions on a variety of key topics, including market trends, performance requirements, and applications for the many industries including leisure, automotive and packaging. The conference will run over three days, and remains completely free-to-attend.

As positive COVID-19 cases continue to decline, we are indeed getting a glimpse of “business as usual” here in Michigan. An optimistic glimpse into what the future could hold. I am looking forward to picking up where we left off in March 2020 and seeing everyone face-to-face again.

‘til then,

Joan Mantini
Joan Mantini
586.295.1888 | joanm@rdgmedia.net



A RDG Media, Inc. Publication
P.O. Box 893
Fort Dodge, IA 50501
586.227.9344
www.pffc-online.com

President/Group Publisher
Randy Green
randy@rdgmedia.net

Editor
Joan Mantini
joanm@rdgmedia.net

Publisher
Lori Pisano
lori@rdgmedia.net
814.616.8380

Accounting Manager
Tara Scanlan

Systems Administrator
Angi Hiesterman

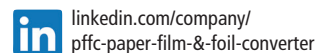
Operations/Customer Service
Jody Kirchoff

Web Design
Josh Scanlan

Auctions
Angi Hiesterman

PFFC will not be responsible for any errors in placement or content after first run of ad. Publishers shall not be liable for any costs or damages if for any reason it fails to publish advertisement. PFFC recommends that you take appropriate caution before buying items sight unseen. PFFC is not responsible for misrepresentation of advertisers. We suggest you contact your own attorney, the Better Business Bureau, or appropriate government agencies if you experience a problem.
Randy Green, President & Group Publisher

Advertising rates, deadlines, and mechanical requirements furnished upon request. Copyright 2021 PFFC. All Rights Reserved. Reproduction in part or in whole without written consent is strictly prohibited.



MODEL 729

VERSATILITY & PRECISION IN A DUPLEX CENTER WINDER

The Model 729 duplex center/surface winder expertly handles a variety of products including pressure sensitives, tapes, and films. This machine can rewind to a 32" diameter, and it's capable of auto score slitting to a narrow 1/2" width as well as log winding. Time-saving automated features and a short web path enhance performance.



GAA to Combine Operations with AIMCAL

The board of directors and membership of the Gravure Association of the Americas (GAA) have voted unanimously to combine with the Association of International Metallizers, Coaters and Laminators (AIMCAL). The deal also has been unanimously approved by the AIMCAL board of directors and is expected to be finalized by August 31.

GAA will become a standing committee of AIMCAL and continue to be known as GAA (Gravure AIMCAL Alliance). Its current leadership and board members will remain involved. Programs like the GAA Golden Cylinder award competition and virtual Basic Gravure Seminar are scheduled to take place this year and will be maintained going forward as will the GAA website, www.gaa.org.

“With the merger, GAA gains access to new partners and customers, and AIMCAL broadens its scope in the converting industry and its international presence,” says Dante Ferrari, AIMCAL president.

“Together we will benefit from our shared expertise

in event planning; awards competitions; industry training, certification, and scholarship programs; publications; technical resources; and regulatory and environmental concerns,” concludes Luigi P. DeFlaviis Jr., chairman of GAA.

AIMCAL Announces Co-Located R2R USA Conference with ICEC USA

AIMCAL committees are hard at work organizing the multi-track agenda for the 2021 AIMCAL R2R (roll-to-roll) USA Conference. Held in-person October 17-21, in conjunction with the ICEC (International Converting Exhibition and Conference) USA (formerly ICE USA) at the Orange County Convention Center in Orlando, Fla, the conference will serve as the ICEC USA Technical Conference. AIMCAL will present its day-long Fundamentals seminars on Slitting & Rewinding and Coating & Drying on October 17 and host a members-only pavilion on the ICEC show floor. Members may purchase discounted booth space within the



BENCHTOP AND PROCESS SOLUTIONS

Quality Control for Silicone Release Coaters by EDXRF Elemental Analysis

AT-LINE AND IN-LINE ELEMENTAL ANALYSIS FOR CONTINUOUS MONITORING AND CONTROL

- Total solution for silicone release coaters
- Cross and machine direction silicone coat weight profiling
- Silicone analysis on paper, clay-coated paper, and thin film release liners
- Proprietary algorithms for silicone on clay-coated papers
- Converters – silicone on plastic or paper



Applied Rigaku Technologies, Inc.
 9825 Spectrum Drive, Bldg. 4, #475, Austin, TX 78717 USA
 T +1-512-225-1796 | F +1-512-225-1797
www.RigakuEDXRF.com | info@RigakuEDXRF.com



AIMCAL Pavilion by visiting www.convertingshow.com. Sponsorship, exhibit and registration options are available.

“AIMCAL SourceBook” 2021-22 Goes All-Digital

The annual AIMCAL SourceBook has been published in an all-digital format for 2021-22 and may be accessed via the AIMCAL website, www.aimcal.org, under the Resources menu. Users may view a digital print edition or a searchable database, which provides search results by company name, business description, capabilities, and/or location.



AIMCAL Elects Officers and Directors

AIMCAL members have elected officers and board members to serve for the 2021-22 term. President Dante Ferrari of Celplast Metallized Products (Toronto, Ontario, Canada), Vice President Andrew Jack of Emerson & Renwick (Accrington, Lancashire, UK), Treasurer Bob Pasquale of New Era Converting Machinery (Hawthorne,

N.J.), and Past President Milan Moscaritolo of Rol-Vac LP (Dayville, Conn.) were re-elected.

Sarah Williams of Sputtering Components (Owatonna, Minn.) joins the board as a director-at-large, replacing Ginger Cushing of Nordmeccanica NA Ltd. (Hauppauge, N.Y.).

“We’d like to thank Ginger for her six years of service as a director and for continuing to chair the Women’s Leadership Committee,” says Chris Kerscher, executive director of AIMCAL.

Five directors-at-large were re-elected: Joe Heinemann of Rayven, Inc. (St. Paul, Minn.); Joseph Perdue of Eckart America Corp. (Schererville, Ind.); Kevin Sopczak of ShapedWire/Leggett & Platt, Inc. (Solon, Ohio); Michael Sullivan of MTI Polyexe Inc., an Inteplast Group Company (Brentwood, N.H.); and Greg Williams of TC Transcontinental Advanced Coatings (Matthews, N.C.).

AIMCAL Schedules Weekly and Monthly Converting School Courses

To provide more digital learning opportunities, AIMCAL offers hybrid online Converting School

THE *EVOLUTION* OF REM

SLITTER | REWINDERS



3250

- OPERATOR FRIENDLY HMI
- COMPACT FOOTPRINT WITH INTEGRATED UNWIND
- EASILY ACCESSIBLE SHEAR, SCORE, AND RAZOR SLITTING OPTIONS
- MINIMUM GAP AND CENTER-SURFACE WINDING
- 30” WEB WIDTH
- 30” UNWIND | 24” REWIND

 **Associated Machine Design, Inc.**
(920) 712-0050 | associatedmachine.com

courses in weekly or monthly formats.

The weekly course offers live online instruction for two hours each day. In the month-long course, attendees watch on-demand video presentations each week and attend a live, online Q&A session each Friday for up to two hours. To register go to www.AIMCAL.org, click Education and select Courses.

UPCOMING COURSES

August 2 – 27

Web Handling Month

Instructor: Dr. David Roisum

August 23 - 27

11 a.m. – 1 p.m. EDT daily

Unwinds: Overview and Case Studies Week

Instructor: Neal Michal

September 6 – October 1

Web Winding Month*

Instructor: Dr. David Roisum

* Web Handling Month should be taken before this course.

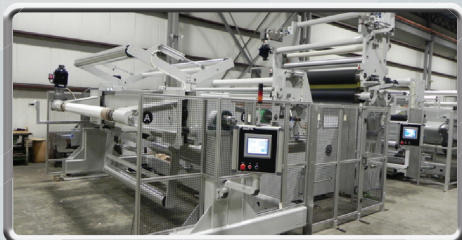
AIMCAL Membership Special Provides an R2R USA Registration

A New Member Special provides one free registration to the AIMCAL R2R USA Conference in October 2021 (an \$899 value) to any organization that joins now and wasn't a member in 2020. To qualify for the free registration, the new member must pay pro-rated dues for 2021 and pre-pay for 2022.

With AIMCAL membership, each member of the organization receives access to a range of technical resources and discounts on event registration fees. Member benefits include an individual profile for each employee and access to a Community Forum, plus the AIMCAL TV video library and more than 10 years of Conference Proceedings. Member organizations are listed in the AIMCAL SourceBook and have the opportunity to present live webinars and participate in committees and technical training.

Learn more at www.aimcal.org, click Membership, or contact Tim Janes, AIMCAL member outreach director, at +1 803-948-9469 or tim@aimcal.org. ■

FAUSTEL



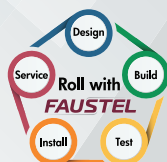
Custom Engineered and Precision Built for Leading Edge Applications

Industrial Coating & Laminating
 Battery & Separator Coating
 Aerospace Material Converting
 Medical & Pharmaceutical Converting
 Filtration Media Casting & Coating

W194N11301 McCormick Dr,
 Germantown, WI 53022

(262) 253-3333

www.faustel.com



INNOVATION IN CORONA & PLASMA SURFACE TREATMENT

FILM • FOIL • WEB • FOAM • SHEETS

- PRODUCING OPTIMUM BONDING FOR PRINTING, COATING & ADHESIVE APPLICATIONS
- CORONA SYSTEMS FROM 10 INCHES TO 10 METERS
- HIGH-PERFORMING MACHINERY WITH STATE-OF-THE-ART TECHNOLOGY
- CUSTOMER-CENTERED DESIGN & ENGINEERING
- 60 YEARS OF EXPERIENCE IN SURFACE TREATMENT INNOVATION



3DT represents SOFTAL in North America. German engineering – U.S. sales and service.

Let's discuss your adhesion challenges!

www.3DTLLC.com • sales@3DTLLC.com • 262-253-6700 • Germantown, WI



TENSION MEASUREMENT & CONTROL SYSTEMS

TA500 Tension Amplifier

A next-generation load cell interface has arrived. DFE's newest tension amplifier provides simultaneous Ethernet, 0-10 VDC and 4-20 mA connections for easy integration with current and legacy PLC systems.

The TA500 also features Quik-Cal™ digital calibration, built-in diagnostics, web browser configuration utility, security lock-out, PLC configuration file support, remote zero & calibration, integral DIN rail mounting and DFE's industry-leading 5 year warranty.



Compatible with all DFE Load Cells

Upgrading control systems for Industry 4.0 has never been easier. Whether you're building an advanced slitter-rewinder with a Segmented Tension Roll® or refitting Model C transducers on a 20 year old web press, the TA500 is designed to integrate quickly and seamlessly.

The TA500 is backward-compatible with all DFE tension transducers manufactured since 1974, including: Universal Transducer, Model C, Model F, Model LT, Model RFA, Model RS, Model THN, Model UPB, Model SUPB, Model VNW, Narrow Web, Tension Roll® and Segmented Tension Roll®.



MORE INFO





MAINTENANCE:

The Key to Keeping Your Corona Station in Full Production

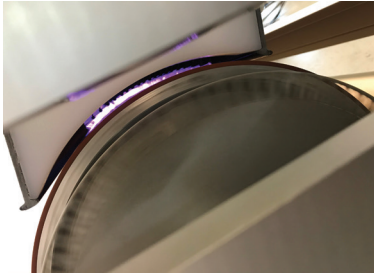
By Alex Kiel, Senior Electrical Engineer and R&D Manager at 3DT LLC

Preventative maintenance is key for keeping industrial equipment and production lines up and running. This is especially true for corona generators and corona stations. By nature, all corona generators utilize a high voltage power source, which is connected to one or more electrodes to generate the corona discharge. These electrodes are isolated from any nearby conductive surfaces to prevent the high voltage signal from discharging to something other than through the electrodes. The ideal corona station is dry and

clean from any debris or contaminants. As the electrical potential at the electrodes can be as high as 20 kV or more, even small amounts of moisture or debris can cause an arc or flashover to a nearby surface. This essentially shorts out the corona discharge and will put the generator into a fault condition. Furthermore, if excessive debris collects around the electrodes, the cooling effect from the ozone exhausting will be diminished which could lead to overheating, and eventual failure of the electrodes.

Assuring a clean bill of health

Electrodes covered in excessive debris can also lead to uneven treating of the material. It is best to clean the electrodes and ceramic insulators with something similar to isopropyl alcohol. It's a good cleaning agent and evaporates quickly. Also, ensure that the roller that the material sits on is clean from debris. An uneven surface, or a surface with a buildup of contaminants will inhibit the generators' ability to give good



Maintaining proper air gap is vital.

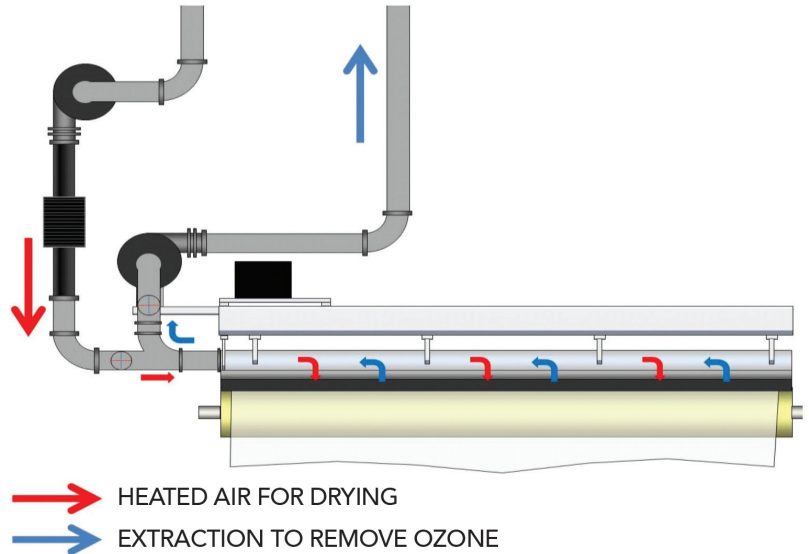
treatment, or may even result in backside treatment of the material. Backside treatment may be undesirable for the process, but it also takes away treatment effectiveness from the topside.

It is also important the check and maintain the proper airgap between the electrodes and roll. Too large of an airgap and output power can be inhibited. Too small of an airgap and the generator may have difficulty regulating power, or may even damage the electrodes or material. Either of these conditions can create a fault condition and a stop to production. This airgap varies depending on each system but is generally between 1.5 -2.0 mm.

Any ground brushes should also periodically be inspected. An excessively worn ground brush may fault the generator as its more difficult to produce the corona discharge with a poor ground path. It may also shorten the lifespan of the roller bearings and the electrical current from the corona discharge will find a ground path through the machine's bearings.

Managing summer's heat and humidity

Reliable operation in humid conditions can be the nemesis of electronic components. Moisture in the treating station is often



For humid conditions a Heated Air Start-Up option can be useful.

a result of humid air finding its way from the outside through the exhaust ducting to the inside. Small amounts of moisture may not cause a flashover or be a problem. If excessive moisture is present, the station should be wiped down manually, or dried with a heat dryer.

Starting the generator at a

lower power level (and therefore a lower voltage) will reduce the chance of a flashover. Additionally, corona discharge creates heat which will dry the station out. In fact, some generators have a "wet start" feature that starts the generator at a low power and slowly ramps it up to its setpoint. For extremely humid conditions various specific options may be available, such as SOFTAL's Heated Air Start-Up.

As summer arrives with its heat and humid weather, maintenance may be needed more frequently. If moisture in the corona station is an ongoing problem, some modifications to the exhaust system may help alleviate problems. Installing a stop valve or damper in the exhaust tube away from the corona station will help prevent moisture from entering the treating station. It should be kept closed whenever the corona is not on, and opened when it is not. If this is not possible, a heat dryer can



Change filters & catalysts in ozone systems periodically.

be installed to introduce hot air into the treating station to remove moisture for a brief time before the corona is activated.

If using an ozone filtration system, make sure the filters and catalyst are changed periodically to prevent ozone from being present in the production area. As many plants are not air conditioned, high temperatures in the summer may introduce other problems. Make sure that the corona generators' air filters are clean and that all cooling fans in the electrical cabinet are working properly. Clean excessive dust or debris off heatsinks. Keep in mind that the higher the corona output power, the higher the internal temperature the corona generator's electrical cabinet will be.

As summer arrives with its heat and humid weather, maintenance may be needed more frequently.

If time is money, then proactive maintenance is essential for decreased downtime and maximized production. Significantly, maintenance plays an important role in adding to the life of surface treatment equipment and the effectiveness of a corona system's adhesion properties. From monitoring plant exhaust systems to wiping down

insulators, consider a daily preventative maintenance routine, as well as scheduling thorough cleaning and service for optimum surface treatment results. ■

ABOUT THE AUTHOR

Alex Kiel is senior electrical engineer and manager of R&D at 3DT LLC in Germantown, Wisc. Alex has a BS EE from Milwaukee School of Engineering and has been with 3DT for 10 years. In addition, he has attended technical training at SOFTAL Corona & Plasma in Germany.



Whenever you need rubber rollers or coating sleeves ...

Rol-Tec gets it done!

- Advanced rubber and cast urethane coverings
- Precision laser engraving
- Tapered and parallel sleeves
- Rubber roller and metal core repair
- Precision-ground steel & chrome rollers
- Metalized plasma coatings

We do it all in-house to give you a ***Total Converting Solution!***



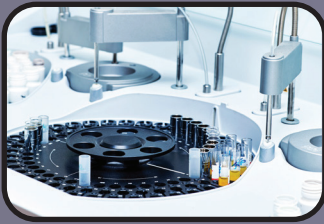
info@rol-tec.com • www.rol-tec.com • 800.497.4950

• rubber rollers • sleeves • mandrels • metal rollers • roll finishing • laser engraving • urethane parts



Servo Motion Control Solutions

Solutions for Industries



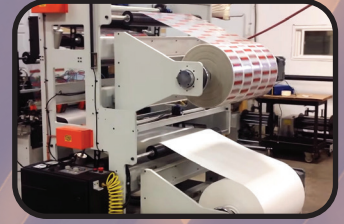
Medical



Can Embossing



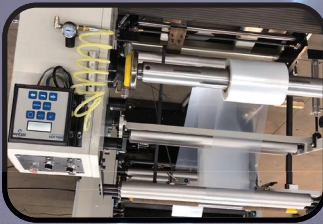
Secure Card Packaging



Pouch Manufacturing



Packaging



Converting Materials



Sewing/Quilting



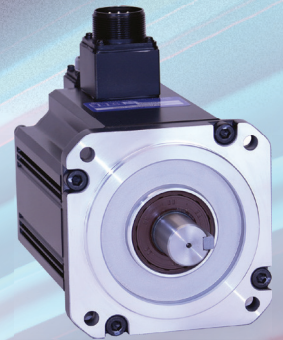
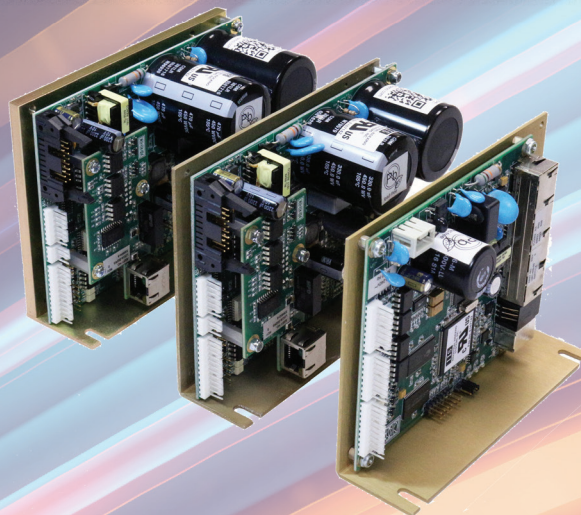
Web Control

Discover multiple examples of systems that provide solutions to a variety of practical industrial applications. Check out methods used in producing products related to printing, packaging, metal fabrication, sewing, food processing and medical device manufacturing industries.

Our comprehensive product line emphasizes power, speed and accuracy. Connectivity options provide an ability to integrate with a variety of equipment used in automation systems.

Check out our solutions at:

www.iis-servo.com/applications/



Industrial Indexing Systems, Inc

626 Fishers Run, Victor, NY. 14564 ~ (585)924-9181

info@iis-servo.com ~ www.iis-servo.com

BEST PRACTICES: Corona Treating Pretreated Films Prior to Converting

By Enercon Industries' **Tom Gilbertson**, Vice President Application Engineering & **Mark Plantier**, Vice President Marketing

You may have heard of the phrases “bump-treating”, “re-treat”, or “refresh treat.” They all refer to treating a film inline prior to converting. You might wonder why converters need to do this if they are already purchasing pretreated films from film extruders. The answer lies in the details of how corona treaters improve surface energy and how time, additives, and contamination work to undermine the effects of treatment.

From resin to converted product

The purpose of surface treatment is to improve wettability and promote adhesion. When most films are extruded from resin, their surfaces are non-porous and chemically inert with very low

surface energy. Film extruders corona treat their freshly extruded films to increase its surface energy. In fact, films that are not corona treated at the time of extrusion may never be receptive to future corona treatment. (Spoiler alert: If you plan on converting films, always buy pretreated films from your suppliers.)

Whether being treated at the time of extrusion or inline prior to converting, a corona treater's process is the same. The treater generates a corona (ionized air) which removes organic and inorganic contaminants from the film's surface layer while oxidizing the surface and activating it for increased wettability and higher surface energy.

Surface energy is commonly measured in units called dynes.

One (1) dyne equals a centimeter-gram-second unit of force. Most converters will have a target dyne level range that works well for their specific process. While dyne levels do not guarantee adhesion, generally speaking, higher dyne levels produce better adhesion results than lower dyne levels.

So why don't film extruders simply treat the films to the levels needed for converting? It's because of surface energy decay.

Surface energy decay

The increase in a film's surface energy is not permanent. Surface energy decays over time and usually levels out at a level higher than the film's initial inert state, but lower than what is needed for converting.

PROCESS:	CONVERTING		
Ink/Coating Type:	Water	Solvent	UV
PE	40-44	36-40	40-50
PP	40-44	36-40	40-50
PVC	40-44	36-40	40-50
PET	40-52	40-46	40-54
PS	40-44	36-40	40-48

Table: Typical Dyne Levels for Converting

The rate of decay is dependent on a variety of circumstances including the film's inherent ability to retain surface energy, storage environment and additives.

Slip additives are used to make the film easier to handle in subsequent converting processes. Other additives may be used to impart properties that are needed in the film's ultimate use, such as flexible packaging applications.

In either case, these additives will ultimately migrate to the film's surface and create a barrier to successful adhesion. Unless your operation has ultimate control over the initial treatment levels, storage conditions, timely supply and use of the film, it will not be practical to expect successful bonding with inks, laminates and coatings that have not been re-treated.

What happens if you don't re-treat?

If you attempt to print, coat or laminate a film with a low surface energy, you're likely to see poor results. For many applications, you will immediately see failed adhesion that will literally stop the press. Or, you may see imperfect results that your quality control team will catch before you ship the product. Worse yet, your customer may be the first to recognize that something is not right with your product.

As mentioned before, surface energy does not guarantee adhesion. It certainly is possible to see successful adhesion with a film that has a surface energy level a bit below your target. However, there is significant risk when you do not treat immediately prior to converting. We asked some industry leaders for their thoughts on this.

What industry experts say about bump treating

An instructor from a flexographic printing program says, "Films are pretreated, but they're not guaranteed

to be perfect when it comes time to print. Treatment degrades over time, so that's one issue you have to contend with. And, even if the film makes the grade on a dyne test, you still have the possibility of additives rising to the surface. These surface imperfections can result in pinholing and other quality issues. A corona treater can help eliminate these problems."

A director of engineering from a company that offers custom coating sees other benefits to bump

**WE'VE
BEEN GIVING
BUSINESSES
LIKE YOURS
THE EDGE
FOR MORE THAN
50 YEARS**

SUPPLYING THE WORLD

Look to us for all your **NEW** and **RESHARPENING** needs

- PINKING WHEELS • SLITTER WHEELS • SHEAR BLADES
- SCALLOP CUTTERS • PERFORATORS • TRIM BLADES
- VERTICAL & HORIZONTAL CUT-OFF BLADES • HOT KNIVES
- SWATCH CUTTING BLADES • PRECISION MACHINING

RT

Randolph Tool Co. Inc.
750 WALES DR. S.E. HARTVILLE, OH 44632 U.S.A.
PH. [330] 877-4923
FAX [330] 877-4924
e-mail: info@RandolphTool.com
Website: www.RandolphToolco.com

No Pain. More Gain.



Isn't it time you took away the razor blades and used the original Ripper to open rolls? You'll reduce waste, improve roller life, and increase roll yield—and eliminate nasty accidents.

See the complete line and place your order at ripperonline.com. Or fax us at 1.317.298.1328.

THE RIPPER

ripperonline.com • 1.800.783.7750

SURFACE TREATMENT



New power supplies feature artificial intelligence for maximum uptime.

treating. “There’s something to be said for a fresh treat. Dyne level does not always guarantee adhesion. Dyne level is simply a measurement of wetting-out. We’ve seen materials with equal dyne levels, one freshly treated and one from inventory; the freshly treated material consistently provides the better adhesion.”

Water-based applications almost always require treating inline, but you may be surprised to learn that many converters find benefits from bump treating solvent processes as well. One solvent printing operations manager recently told us, “There’s no doubt that our lines with corona treaters have less delays and downtime. The treaters provide a safety net that assures surface dyne levels are optimal for printing.”

Take control of your operation

By following the industry best practice of treating inline prior to printing, coating or laminating, converters can eliminate surface energy as a process variable. With a corona treater, a successful process “operating window” greatly expands.

Which corona treater design will work best for your application? Most converters use high-definition corona generated by high-powered ceramic electrodes and a proprietary ground roll covering that is effective at treating both conductive and nonconductive films. New corona treater power supplies are also making it easier for operations with simple-to-use touchscreen interfaces that are backed by artificial intelligence and support Industry 4.0 integrations. ■

Profitable Sustainability

Stewardship for your bottom line and stewardship for the environment can work together. Adding non-stop unwinds and rewinds from Martin Automatic is good for your business and good for the environment too. Find your competitive edge, and improve your bottom line and environmental impact.

By adding Martins to two label presses we were able to reduce energy consumption on the presses by 23%.

Label printer in Europe



We have seen a 30% reduction in waste levels since adding the Martins.


Bag making company in USA



non-stop running non-stop running non-stop running
your press here

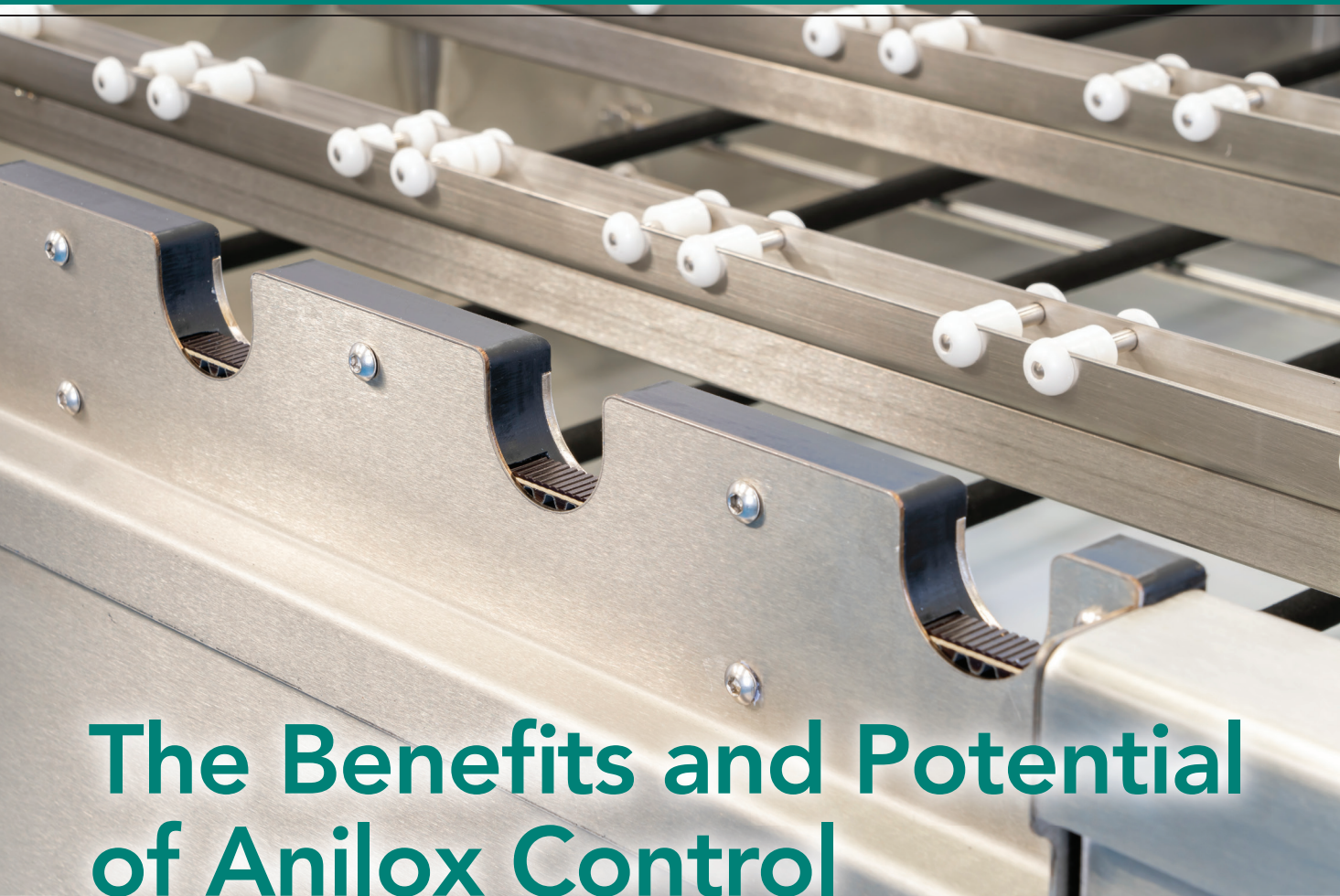


A cleaner, greener tomorrow through conserving energy, waste, and downtime with every splice.

 **Martin Automatic Inc**

High Performance Splicing, Rewinding, and Tension Control Systems

OUR EXPERIENCE...YOUR ADVANTAGE



The Benefits and Potential of Anilox Control

By **Christopher Jones**, Vice President of Alphasonics USA discusses

As flexo settles into the 21st century after surging ahead on the back of laser development, it is becoming more apparent that simply ‘cleaning’ the anilox is no longer good enough. The process has reached a pivotal point with increased screen counts and laser engraved plates pushing flexo into a new era. However, underneath the drive for improved print quality lies a fundamental issue – cleaning the anilox, safely, fully and consistently.

Flexo’s new paradigm is “Anilox Control”- ensuring the roll is used in such a way to deliver the very best results through stringent care, maintenance and management. But with cell walls now down to 2-3 μ wide, the choice of how to achieve this is thinning.

What is actually meant by “clean”?

The word has such a wide scope. If the roll is not returned to 100 percent of its full available volume, then it’s not clean, pure and simple. “Cleaning” is simply inadequate if we want to take full advantage of our high screen aniloxes. Why invest in a set of 1200lpi anilox rolls if you do not have the ability to get them 100 percent clean on a regular basis?

By keeping the anilox 100 percent clean you can gain control over the process, the output and as such, the profit, a mantra that is simplistic but very true.

The process of flexo is found in the pre-press. If you control what goes into the press you inevitably

control what comes out and by consistently rendering the roll 100 percent clean, six tangible, cost saving benefits will be achieved:

1. No requirement to ever over-pigment inks (unless to compensate for a heavily worn anilox)
2. Quicker and more consistent make ready times, leading to...
3. Greatly reduced waste;
4. Higher and more consistent print quality; and
5. Higher production run-hours.
6. Easier anilox inventory management (through the regular use of a quality control system such as Troika’s AniCam)



All of the above lead to an improved ROI on the aniloxes, the cleaning system and the press.

The past 30 years has seen methods of anilox cleaning develop then disappear, not because they weren't producing results, but due to anilox technology itself changing. No sooner was a system produced that could clean e.g. 600lpi rolls the screen counts jumped to 1000lpi, which the system wasn't designed for. This happened with soda blasting and polymer bead blasting for example.

The same is occurring today with jet-wash systems and laser cleaners, as the requirements and standards in terms of cleaning performance, environmental/

To overcome the issue of loss of process control Alphasonics has developed Alphasound, Betasound, and Active Cavitation technologies that have pioneered the safe and effective regular cleaning of aniloxes, no matter what the screen count, anilox manufacturer or regularity of cleaning. Gone are the days when anilox development can outstrip the ability to clean safely and consistently. Advanced ultrasonics is guaranteed to render the aniloxes 100 percent clean with complete consistency, is flexible, safe and effective across the whole screen count range, plus screen counts yet to come.

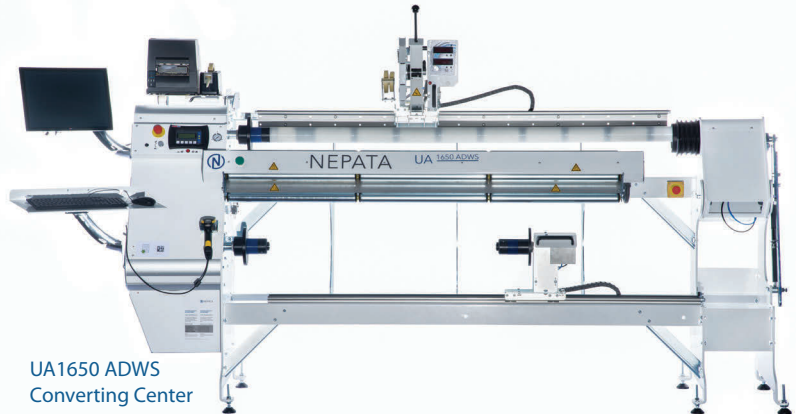
health and safety requirements of the industry simply cannot be met by these methods.

So, what about future flexo?

In February 2020 a high-end press manufacturer carried out independent trials to determine what system delivered the best cleaning results on their aniloxes. Alphasonics' Advanced Ultrasonics' package of technology came first, Laser came second and Jetwash third. These were completely independent results that confirm the above.

The anilox truly is the heart of the process. Look after your heart and it will pay you back tenfold. ■

CONVERTING SIMPLIFIED



Top converters worldwide rely on NEPATA to get the job done. To learn more contact Supply55, Inc. at 734-668-0755 or visit www.supply55.com.

 **NEPATA**
REWIND. TRIM. SLIT.
EQUIPMENT FOR EFFICIENT CONVERTING

SUPPLY55

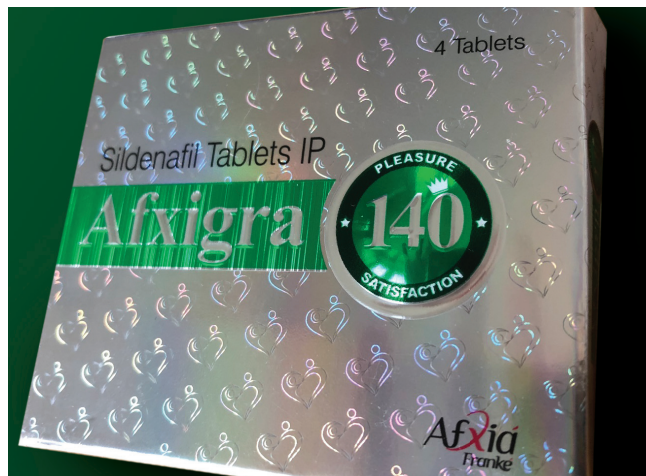
www.supply55.com
info@supply55.com

Packaging Dimension added with Holography

Contributed by **Mitchell Halton Watson Ltd** on behalf of the International Hologram Manufacturers Association

Holography's accessibility, relative low-cost and versatility lends itself to integration with various substrates and print and conversion technologies, driving new products and innovative commercial applications. Advanced film coating and manufacturing technologies are pushing new application boundaries, while a wide variety of specialist origination techniques offer an almost endless variety of colorful 3D visual effects, ranging from the iridescent and visually striking to more subtle, muted tones and graphic features. Indeed, the holographic foil market will continue to see high CAGR growth between period 2021-2027, driven by the increasing interest of packaging converters and suppliers in the technology*.

A new generation of optical structures is in progress, featuring distinct visual effects that are easy to identify, yet even more difficult to simulate, while new techniques in film coating and production technology are seeing the boundaries for the use of holographic materials pushed ever further: a wide variety of specialist origination techniques offer an almost infinite variety of colorful 3D visual effects, ranging



from the bright and stunning, to subtle graphic features and tones.

The eye-catching appeal of contemporary holograms makes them an extremely beneficial packaging accoutrement. Indeed, surveys undertaken over the year have established that the technology grabs the attention of global consumers browsing the product shelves in a store or supermarket. This is the one single property that all brand owners look for in their packaging – maximum brand appeal.

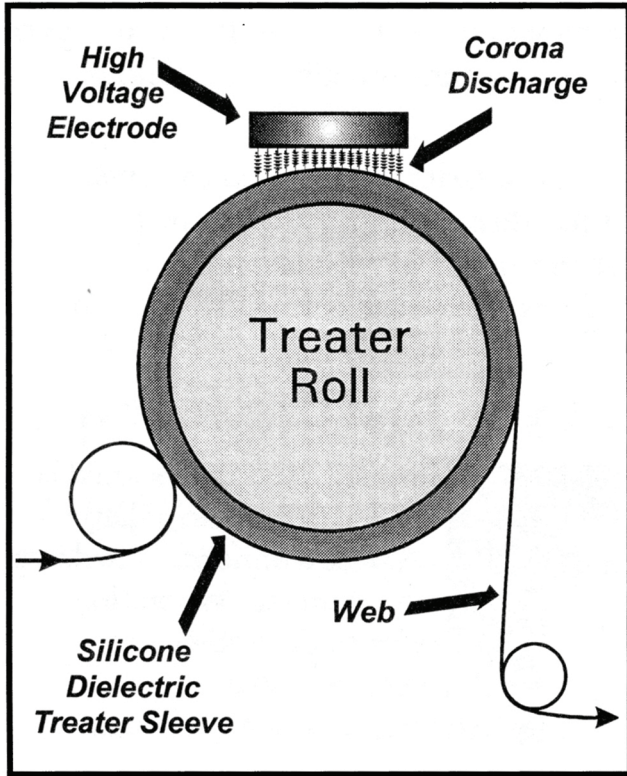
Added value

Holography also imparts a premium look to the package, which is why more and more companies are using holographic films and

foils in their packaging. Toothpastes, premium cosmetics and personal care products are among the big users of holographic elements in their packaging. In this application, the security that is naturally provided by a hologram is of peripheral benefit as any custom designed holographic pattern offers the option of including security features to make the package secure against counterfeiting.

Innovation in holographic films are ideal for a wide variety of flexible eye-catching applications, further increasing the creative visual opportunities for packaging and print designers to reinforce brand identities, catch the customer's eye and reinvigorate mature or aging designs. Indeed, holography's ability to refresh and reinvigorate brands continues apace, highlighted by the recent Excellence in Holography Awards, where a holographic calendar from USA's Hazen Paper Company, which included lenses set behind the date and month windows, a grey motion background sky and a color variant for the dragon's body, and dual lenses to create a flame effect, reflected a 'significant step forward' in the ongoing development of

SILICONE Treater Sleeves



Life inside a corona treater is hell.

Dielectrics must withstand high frequency, high voltage discharge, plasma-induced ion bombardment, elevated temperature, and concentrated ozone. Even the slightest defect can result in premature failure.

We closely inspect each and every sleeve that goes out the door, and we guarantee our sleeves against immediate blowout on your treater. *That's why we can say, with full assurance...*

"Our silicone sleeves are equal or superior to those supplied by the world's leading treater manufacturers."

We've been selling these treater sleeves for over 25 years now — in that long period of time, we have had only one or two sleeves fail on installation. 100% visual inspection is, indeed, very effective!

We guarantee these are the same high quality treater sleeves sold by OEMs worldwide — all at significant savings!

Product Code	Fits Roll OD*		Actual ID	Color	Wall Thickness	Price per Linear Inch
	English	Metric				
96152	1.5"	38 mm	35 mm	Orange	.080" (2.0 mm)	\$1.15
96202	2.0"	51 mm	46 mm	Orange	.080" (2.0 mm)	\$1.35
96252	2.5"	64 mm	59 mm	Orange	.118" (3.0 mm)	\$1.85
96302	3.0"	76 mm	70 mm	Orange	.080" (2.0 mm)	\$1.85
96402	4.0"	102 mm	95 mm	Orange	.080" (2.0 mm)	\$2.25
96602	6.0"	152 mm	141 mm	Orange	.095" (2.4 mm)	\$3.15
96802	8.0"	203 mm	190 mm	Orange	.102" (2.6 mm)	\$4.55

*These sleeves will fit any treater roll OD within +/- 0.125" (3 mm) of listed size.

Wall thickness variance: +/- .006"
Hardness (Shore A): 70-80

Dielectric Constant: 4-5
Dielectric Strength: 250 v/mil

www.accudynetest.com

Diversified Enterprises, 101 Mulberry St., Suite 2N, Claremont, NH 03743

Phone 800-833-4644 or 603-543-0038; fax 603-543-1334; email rsmith@accudynetest.com

innovative holography solutions for commercial packaging and decorative finishes and applications.

Attractive packaging plays a huge role in boosting product sales and good holographic design can real add value, capturing the message and essence of a product, defining its premium qualities. Holographic effects create reflective accents on selected areas of the packaging in order to enhance the overall visual impact – for instance, a flat surface is dramatically transformed into a stylish 3D concept.

This radiating finishing design can also be tailored to individual packaging requirements to ensure products stand out in the retail environment and catch the eye of the consumer on crowded retail shelves. AR Packaging offers many different technologies to cover packaging with a luminous holographic finishing and the company’s design for Nivea’s “Make Up Expert” carton shows the power of holography to radiate the individual character of product.

Global appeal

Elsewhere, Holography Industry CJSC’s (Belarus) next generation

of labels use a combination of polygraphic printing and holographic images to enable the implementation of new visual effects for anti-counterfeit protection. The cold embossed hologram integrated into the labels enables bespoke designs to be produced for brand enhancement and shelf appeal.

Featuring advanced proprietary 3D holographic imagery and created from advanced print and design materials, the Poseidon box from foil and visual effects specialists, Fresnel Innovations, can feature as the centrepiece of a luxury brand strategy, build around sophisticated, elegant and environmentally sensitive cutting-edge packaging that delivers enhanced appeal and added value in the retail environment. The development reflects advances in nanostructure print technology to create designs reflecting a product’s essence as part of packaging incorporating state-of-the-art anti-counterfeiting measures for additional brand protection.

In India, Holostik’s work for Afxigra has led to the introduction of a holographic packaging product that not only protects

the brand but also enhances shelf appeal. The packaging includes a non-printed metallic effect, a platinum relief image which contains an embossed 3D effect, a dome lens effect, a brush stroke effect and a heart outline. Holostik’s Magnum is a secure yet eye-catching hologram that incorporates a portfolio optical of features including: full visible dynamic effects, emboss effects producing depth, kinetic effect, a Fresnel effects, 2D/3D effects, 3D text, a gradient effect, animated flower and text, and an animated covert laser readable effect together with many other features.

Advancements in new imaging techniques and combinations of other technologies with holograms will continue to ensure holography’s success. Moreover, with the ceaseless march of technology, there’s no reason why holography shouldn’t continue to evolve as packaging designers search for ever more vibrant, creative and dynamic materials to work with and discover the vitality and flexibility it offers. ■

*<https://www.360researchreports.com/global-transparent-holographic-lamination-film-market-17335811>

Designers and Manufacturers of Totally Enclosed Chambered Doctor Blade Systems

Servicing the narrow and wide web industries since 1983

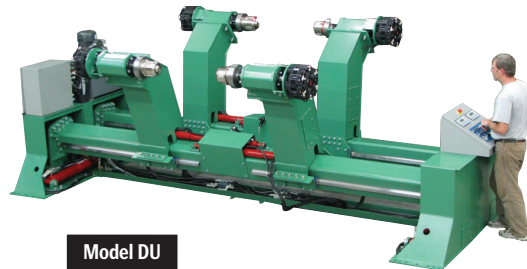
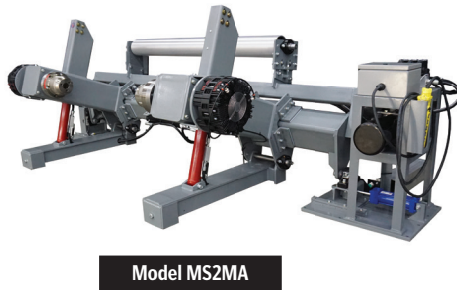
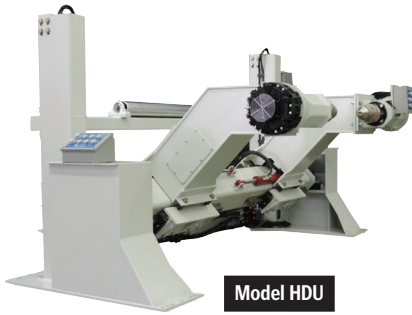


2596 St. Hwy 32
Pulaski WI USA 54162
New Phone: 920-865-7775
and Fax: 920-865-3824



Web: printco-industries.com
E-Mail: sales@printco-industries.com

Want More Production?



Keep your converting machines busy!

See why major corporations, small converters and OEM's prefer the proven and versatile shaftless unwind machines from Powell Engineering, Inc.

- Proven to increase production
- Eliminates shaft related injuries
- Lifts rolls from floor or cart
- Proven quality and reliability
- Easy one-man roll changes
- Braked or spindle driven
- Widest range of options predesigned and available
- Reasonably priced

ALSO AVAILABLE:

- Cantilevered packaging unwinds
- In-floor roll trolleys
- Splice tables
- Dancer units
- Cast Grip™ series core chucks



Machine design specialists

POWELL ENGINEERING, INC.

Phone: 205-625-5444 • 800-213-4267
unwind@powellengineering.com
www.powellengineering.com



Static Control & Elimination



Terrance Clark
National Sales
Manager at
TAKK Industries



Kevin Coldren
Sales and Business
Development
Manager at Simco-Ion

Why is static control and elimination important for the converting and package printing process?

Clark: Static Control technologies provide tremendous value and benefits toward ensuring optimal productivity and high-quality produced goods. By applying best in class static control technologies converters, packaging printers can prevent production losses, material waste and personnel hazards associated with uncontrolled static electricity, leading to maximizing output and profits.

Coldren: High static levels negatively impact quality, productivity and safety and can occur with all varieties of presses and printers. Higher web speeds increase the charge on a substrate which then traps contaminate and leads to printing and packaging defects. Field lines coming from the charged surface interfere with printheads, nearby electronics and are directly linked to operator shocks and fire risks in hazardous environments. Examples of problems caused by high static levels are: contamination adhering to the substrate resulting in problems with ink adhesion and necessitating frequent cleaning of print heads, misfeeds, registration issues and jams. High static charges can cause static discharge events (arcing) interfering with sensitive electronic devices and/or causing uncomfortable and dangerous operator shocks. By incorporating the

proper static control into the process, one will reduce and eliminate these process issues.

What are some best practices for static control and elimination?

Clark: A well proven strategy for implementing an effective static control program is to utilize the expertise of skilled technical experts in the static control field as well as the processes converters and package printers operate. From this effort solid evaluation, understanding and problem-solving methods can be established to ensure resolution of static electricity problems producers encounter. TAKK Industries' team of technical personnel possess 100+ years of keen know-how in industry and static control solutions. What comes from leaning on this expertise is development of comprehensive long-term effective static control within converting and package printing operations.

Coldren: Start with introducing smart technologies: monitored static eliminators, supported by static sensors, and closed loop feedback systems. Take a systematic approach that proactively eliminates static and provides communication and then add in connectivity to your PLC, so that data on system performance is available when and where it is needed. Once the interference posed by static charges is eliminated, employ a means of capturing the

contaminate such that it is not only removed from the substrate but eliminated from the converting process.

What are the applications for static control and/or elimination that your company provides expertise and solutions for?

Clark: There are numerous applications where static controls are most useful...from extrusion and winding of converted films, to printing and binding of products. It would be difficult to find an application within converting and packaging printing where static control technologies have not made a tangible difference in improving operations. For over 75 years, TAKK Industries has worked deeply within these industries, becoming well versed in the pain points that processors experience, as well as in developing time tried static control solution strategies that we are glad to share with industry.

Coldren: For Flexible packaging lines it is recommended to add static control at the unwind, coater, laminator and rewind. In these areas, correctly positioned active ionizers yield a more fluid converting process, by addressing quality, web tension, FM, safety and processing issues linked to high static charges. When static elimination alone is not enough to resolve an FM issue, add in contact and non



CELEBRATING 10 YEARS! OCTOBER 19-21, 2021

Orange County Convention Center | Orlando, FL



THE AMERICAS' LEADING EVENT FOR PAPER, FILM, FOIL AND NONWOVENS CONVERTING

INTERNATIONAL CONVERTING EXHIBITION & CONFERENCE—also known as ICEC USA—is the leading, largest & all-encompassing biennial event and the central meeting point for the international converting industry. Buyers, suppliers and manufacturers convene here to get a first-hand look at the latest machinery, technology, and manufacturing solutions.



WHAT'S NEW AT ICEC USA?

CO-LOCATION WITH AIMCAL'S R2R CONFERENCE ICEC USA will be co-located with AIMCAL's Roll 2 Roll Conference (R2R) in October at the Orange County Center in Orlando, Florida. The R2R Conference has been a champion of roll-to-roll processing, and the converting industry for many years and has steadily grown by delivering solid technical programming and valuable networking opportunities to attendees.

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.

Don't miss your opportunity to establish successful new business relationships, view the newest and most innovative products and services, and learn from top industry professionals within this dynamic market.

Join the conversation at #ICECUSA21

WWW.CONVERTINGSHOW.COM

contact web cleaning to remove contaminate from the process. Form, fill and seal lines run faster and more efficiently with static eliminators at the sealer. Pharma and medical applications can have unique cleanliness requirements, and for those environments ISO class 6 active ionization is available for the packaging area. For the package printer, it is recommended to add static control at the unwind, web cleaning prior to the first print station, additional static control as necessary (especially for corona treated webs) and then active ionization at rewind, to deliver a static free product.

Describe common static problems that your customers face, and types of solutions they can consider to address these challenges.

Clark: Very common problems relate to product quality and personnel safety. When static electricity is uncontrolled it can rise to a level that is unsafe for operators to be near a web or sheet causing shocking hazards to personnel and or discharging to process controllers like sensors, which can be taken offline or permanently damaged due to electrostatic discharge. Additionally, static electricity can cause material misbehavior as it is termed, that causes unexpected, erratic movement of webs or sheets in ways that prevent repeatable, efficient winding, stacking or overall good handling control. Webs can track poorly during winding; sheets may not stack uniformly, and materials stick to rollers or other surfaces that prevent optimal productivity. All of

which of course leads to profit losses, wasted labor, materials, and supplies.

The solutions to be employed for maximum effectiveness are electronic static control technologies, with emphasis on Reactive Intelligence, Smart Static Control Ionizer Bar technologies such as our NEOS Reactive Intelligence Ionizers that reliably reduce static charges to the lowest possible level. In the most difficult static electricity problem applications, a major emphasis is the ability to neutralize changing diameter rolls on winders or in other areas where the ionizer cannot be installed close to the surface to be neutralized. What makes the NEOS special and is a major shift in static control capability, is that it continuously measures the degree of static charge

Opening Features
Straw Holes

Spouts
Ventilation Holes

Half Cut

Opening Perforation
Beverage Carriers/Trays

Liquid Packaging

Development and design of machines, modules and spare parts for the production of
Packaging

Inspection Windows
Level Indicator
Flexible Packaging

Tobacco Blanks
Holes

Braille Embossing
Embossing

Hot Foil
Hologram

Schobertechnologies GmbH
Industriestraße 2
71735 Eberdingen/Germany
Telefon +49 7042 790-0
info@schobertechnologies.de

Cutting and creasing with maximum efficiency and quality, thanks to Vector Technology



As a manufacturer of digitally printed folding boxes and in-mould labels, your best way into the future is with our new RSM520HD-DIGI-VARICUT. Thanks to our innovative drive technology, continuous and intermittent processes can be combined in the ongoing cutting and creasing process without changing the magnetic cylinder. For you, this means shorter set-up time, minimal tool costs and optimal workflow connection with reduced waste.

schobertechnologies.com when it comes to punching, stamping, cutting, perforating, creasing, scoring, embossing, sealing, ultrasonic welding, dispensing, applying, cut & place, collating, folding, gluing/bonding, or laser technology.

Please contact us! We can assist you – worldwide.



on a charged surface and constantly adjusts its output to eliminate the static charge from the materials or process. The NEOS also can be installed at long range up to 60 or more inches, which makes the NEOS a leading technology for the converting and packaging printing industry.

Coldren: A properly implemented static control system will improve productivity, quality and safety. Static control ties directly to how fast the process can be run, how safely the line is operated and the quality of the delivered product. Static control eliminates one of the greatest barriers to achieving high quality - contamination. Active static systems can eliminate charged substrates preventing dust

from clinging to the surface. If this contamination on substrate materials isn't eliminated or prevented, the material is compromised throughout the entire process. However, if static control alone is not enough to provide a clean substrate best practice is to remove and capture the contaminate. Current generation contact cleaners rely on engineered, traceable elastomers and adhesives, and remain the best choice for printers, coaters and metallizers who insist on eliminating contaminate from their critical, valued added processes. For faster web speeds, or applications where voluminous contaminate threatens to overwhelm the converting process, there are non-contact vacuum systems, some with newer clamshell designs, that will consistently remove particles

well below the visible (>50 micron) spectrum. These vacuum systems incorporate monitored static control and monitored vacuum levels for maximum effectiveness.

What is new in static control in terms of technologies, products, or even approaches to customer service?

Clark: The NEOS Reactive Intelligence 24 VDC Static Control technology is a major new development in the world of static controls. This technology combines best in class capabilities, while being affordable, for small and large companies. Industry 4.0 is increasing becoming a hot topic in industry. With one of core elements of Industry 4.0 being a focus on implementing

Is static attracting contamination to your webs and products?

We Have The Solutions.

Introducing the NEOS Series: The Future of Static Controls

- Built-in Reactive Intelligence to detect and eliminate static
- Ultra-high performance through intelligent technology
- Effective at higher charge levels and higher speeds
- Models to match applications with multiple distances and speeds
- 24 volt DC operation with built in HV power supplies
- Remote and local monitoring including "Clean Me" feature
- For use on plastics, paper, textiles and more



NEOS 33 XIFO: 33kV pulsed DC technology with built-in field polarity sensing. Software algorithms control all operations to achieve fastest neutralization and ease of operation. Up to 60" static elimination range.

NEOS 30: 8" to 60" range; extended range applications—winding, large area coverage

NEOS 20: 6" to 30" range; mid range applications—web, conveyors, etc.

NEOS 12F: 1.5" to 6" range; high speed applications up to 4500 feet per minute

(static control) technologies that can be integrated with overall control systems like HMI or PLC's. The NEOS Static Control system is designed to be easily compatible with industry common machine control systems enabling operators access to the operating status of their NEOS Ionizer bars. Without question this technology development is helping to address long held customer concerns with knowing how or if static controls are working properly within a process.

Coldren: Intelligence, monitoring and communication. Many converters feel it is no longer good enough to mount a static eliminator and assume it is working. They can't risk waiting for an adverse outcome to find out the ionizer has

not been working for some period of time. Customers have come to rely on today's newest systems that monitor ionization, record data and signal potential problems. The future will continue this tread with more communication and data collection. Systems focusing on predictive elements that enable a possible problem to be addressed before it becomes an actual problem that impacts production will be the standard. These types of intelligent products will communicate in real time satisfying customer requirements for Industry 4.0 and demands of the future.

What factors should converters and package printers consider when choosing static control solutions?

Clark: There are a few key factors to consider – such as, does the supplier have the needed expertise, technology and service that meets the needs of the converter. A clear track record of reliability in the industry. Leading static control technologies that deliver economical effectiveness for your current and future needs.

Coldren: A static control solution should add value for the converter and package printer. Consider who is your static control supplier and what resources can they offer, specific to static control and web cleaning. Does your supplier offer static control options designed for your application, what choices and technologies are available, and what level of support do they offer to help you navigate to the best solution. ■



WORLDWIDE LEADERS IN STATIC CONTROL

LEADING THE STATIC CONTROL INDUSTRY IN TECHNOLOGY & INNOVATION



IQ Power Wireless Link

- Communication via Industrial Bluetooth
- Elimination of long cable runs



IQ Power Control Station

- Monitoring of the system globally or by device
- User set alarm thresholds

IQ Easy LP Bar


- Superior close-range ionization
- Built-in high voltage power supply
- Compact design at 3/4" height



call today for complete details

(800) 203-3419

customerservice@simco-ion.com

	3DT LLC8 www.3dtllc.com
	American Roller COFC www.americanroller.com
	Applied Rigaku Technologies Inc6 www.rigakuedxrf.com
	Associated Machine Design7 www.associatedmachine.com
	Blower Application Co2 www.bloapco.com
	Carter Printing Co., Inc.IBC www.raffle-tickets.com
	Catbridge Machinery5 www.catbridge.com
	Diversified Enterprises21 www.dynesonline.com
	Dover Flexo Electronics9 www.dfe.com
	Faustel Inc8 www.faustel.com
	Finzer Roller COBC www.finzerroller.com
	Global Plastics Inc16 www.ripperonline.com
	ICEC USA25 www.convertingshow.com
	Industrial Indexing Systems13 www.iis-servo.com
	Jemmco LLCIFC www.jemmco.com
	Lotar EnterprisesIBC www.lotarenterprises.com

	Martin Automatic Inc17 www.martinauto.com
	Nordmeccanica Group1 www.nordmeccanica.com
	Powell Engineering Inc23 www.powellengineering.com
	Printco Industries LLC22 www.printco-industries.com
	Randolph Tool Co Inc15 www.randolphtoolco.com
	Rol-Tec Inc12 www.rol-tec.com
	Schober USA Inc26 www.schoberusa.com
	Simco-Ion Industrial Group28 www.simco-static.com
	Sonic Solutions3 www.sonicsolutionsusa.com
	Supply 55, Inc19 www.supply55.com
	Takk Industries Inc27 www.takk.com
	Westech ConvertingIBC www.westech-industries.net

TICKETS
ticketsbycarter.com **FAST**

NEW!
2 DAY
ECONOMY
SHIPPING
49 States
in the US

217.227.4464
Fax 217.227.4140
raffletic@aol.com




607 Elevator Street • Farmersville, IL 62533

Your Full Service Printer
ENTREPRENEUR • ENVELOPES • CARDBOARD FOLDERS
BUSINESS CARDS • BROCHURES • NOTE BOOKS
AND MORE

High Quality, On Time Converting

- Expert slitting, sheeting, trimming, die cutting, corona treatment & shrink wrapping services
- Quick turnaround on specialty projects
- Clean, affordable & reliable



Get A Quote Today:
www.Westech-Industries.net
800-916-9488

Surface Tension Testing

For Adhesion
AND Cleanliness Testing

- Quick • Easy • Clean

LOTAR ENTERPRISES
TESTING INKS & PENS



Tel: 920-465-6678
sales@lotarllc.com
www.lotarllc.com

PFFC
An RDG Media, Inc. Publication
PO Box 893
Fort Dodge, IA 50501



WE'VE GOT YOU COVERED...



ROLL COVERINGS

Rubber • Polyurethane • Silicone
Ceramic • High Release • Nylon



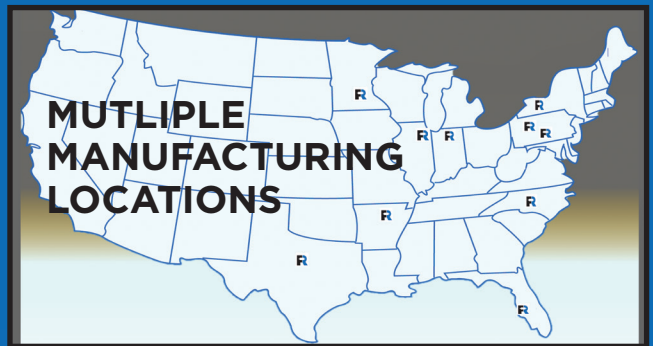
ROLL SERVICES

Recover • Repair • Regrind
New Cores - All Metals & Carbon Fiber
In-House Compound Development



SPECIALTY PRODUCTS

Rotary Brushes • Pin Perforating Rolls
Anilox Rolls • Non-stick Coatings



**MUTLIPLE
MANUFACTURING
LOCATIONS**