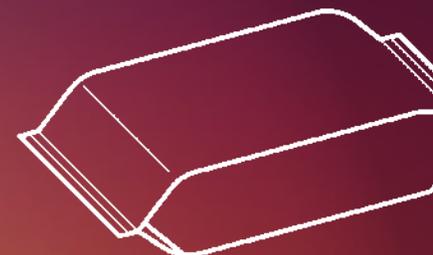
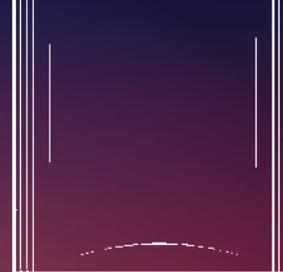




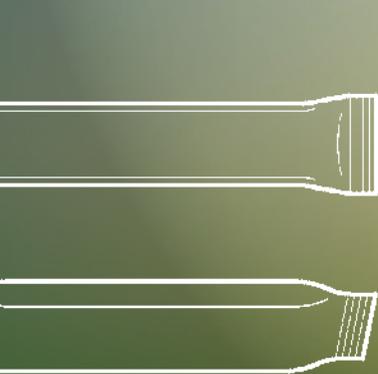
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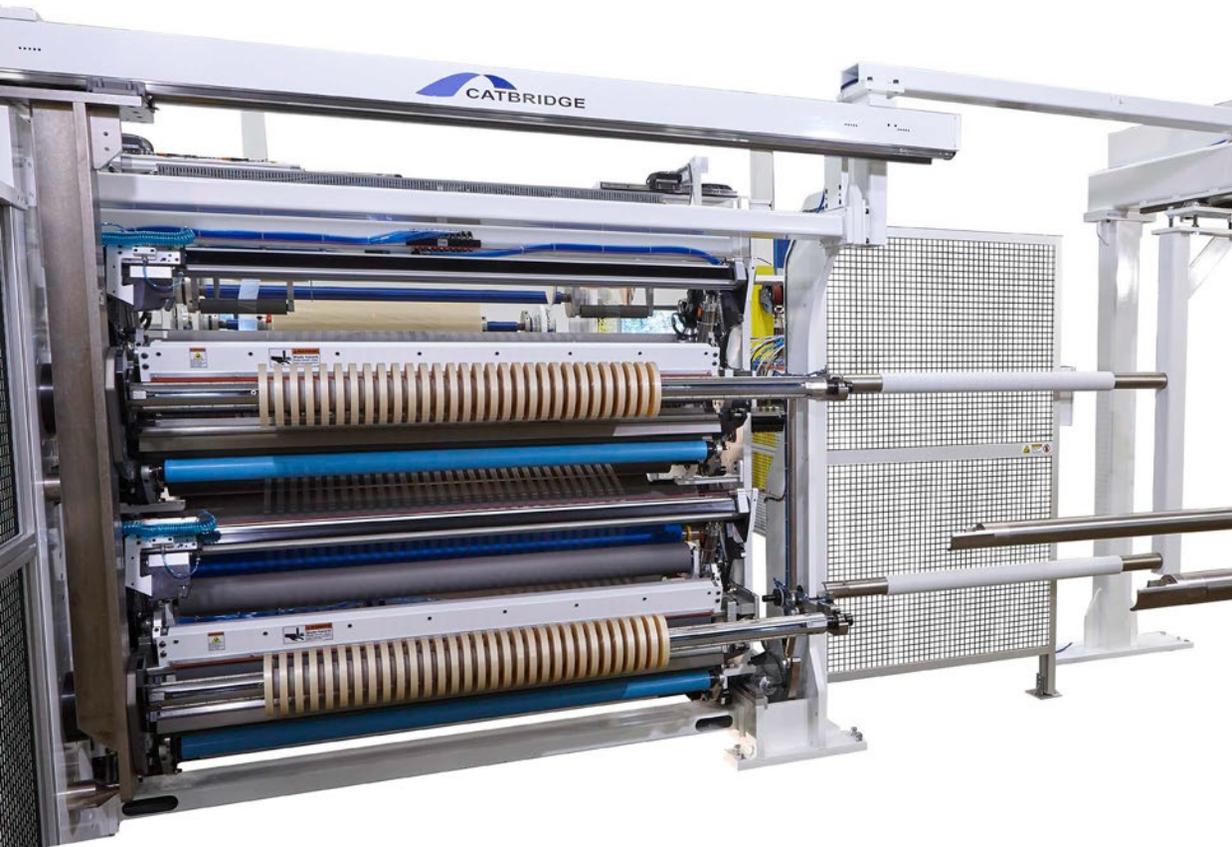
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The innovative 900MC combines the capabilities of a duplex center winder with the productivity gains of a turret. The 900MC can rewind to a 32" diameter and will handle materials including paper, primary films, flexible packaging laminations, pressure sensitives, and label stock. To significantly reduce downtime between sets, this duplex center winder uses auto tabbing and auto cut-and-transfer turret technologies. Cutoff is done close to the rewind point, producing short strands that can be precisely controlled for roll alignment. Additionally, this machine offers proven technologies that increase production including auto knife positioning and auto core loading. For ease of use, the 900MC provides an advanced yet intuitive control system and an ergonomically-friendly design.



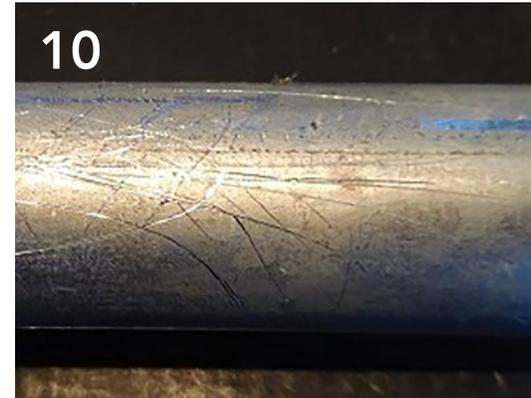
Performance & features

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- Advanced tension control, precise strand alignment, & differential winding
- Multiple slitting methods & auto knife positioning
- 32" rewind diameter, speeds to 2500 fpm
- Intuitive controls, ergonomically-friendly design
- Ideal for flexible packaging & label applications

Contents

- 5 Buying Into Sustainability
- 10 New Coating Technology Providing Real Solutions in Flexible Packaging
- 15 Machine Engineering to Address the Needs of Emerging Flexible Films
- 18 Is it the End for Non-Recyclable Plastic Packaging?
- 23 The Myriad Benefits of Metallized Packaging
- 26 Defining Reliability

10



18



23



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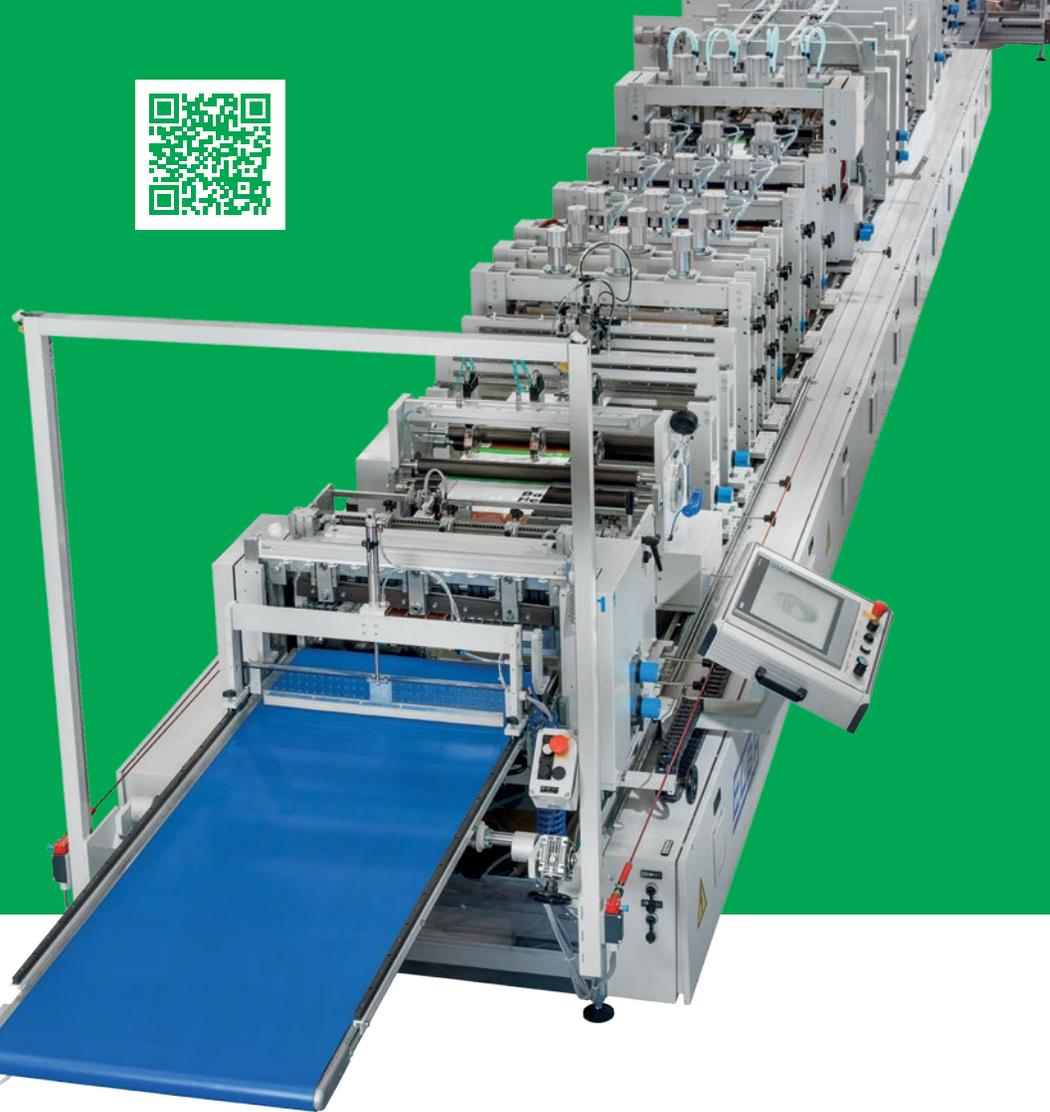
Buying Into Sustainability

Consumers are conscious about packaging sustainability and showing their appreciation of sustainable packaging at the checkout counter

The Flexible Packaging Association (FPA) created an infographic that helps to summarize the FPA sustainability report, Perspectives on the Meaning of Sustainability in Flexible Packaging. The report explores how flexible packaging lends itself to brand owners' ability to establish a reputation for environmental stewardship. FPA conducted a 2018 Sustainability Study to better understand perspectives on sustainability and packaging among both consumers and brand owners. The study integrates insights from brand owners surveyed online in June 2018 by Packaging World and insights from an online survey of U.S. consumers conducted by The Harris Poll in July 2018.

The survey results indicate that 83 percent of consumers say they understand the meaning of sustainability; 65 percent of consumers think sustainability is at least a very important attribute of packaging for products sold both in-store and online; and 86 percent of consumers care about sustainability in general.





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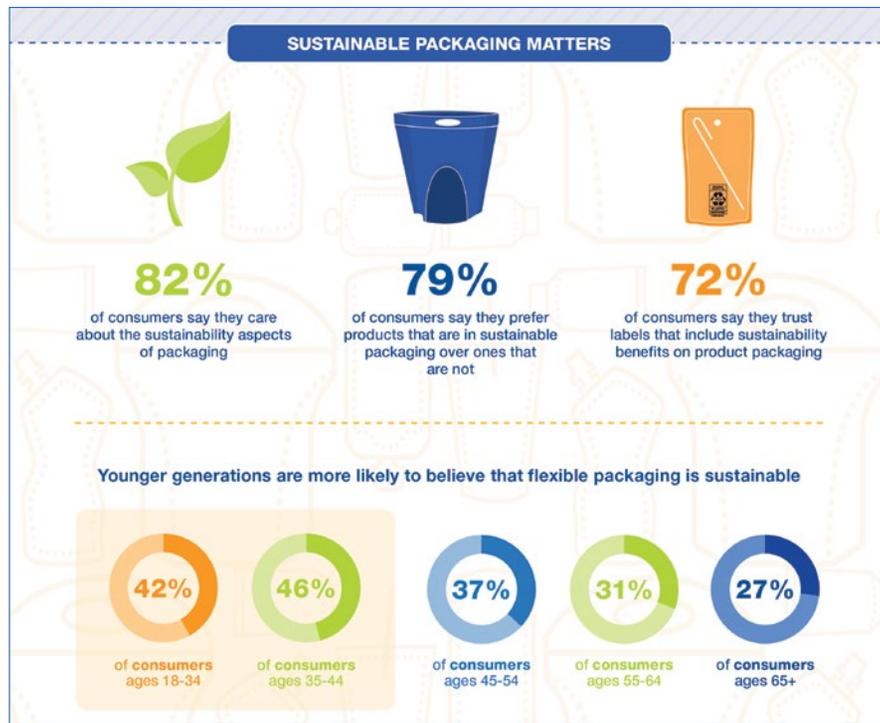
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3 COMPANIES WITH AN INTERNATIONAL VOCATION TO GRANT THE FULL PRODUCTION CHAIN



Sustainable packaging matters to consumers. Eighty-two percent of consumers say they care about the sustainability aspects of packaging; 79 percent of consumers say they prefer products that are in sustainable packaging over ones that are not; and 72 percent of consumers say they trust labels that include sustainability benefits on product packaging.

Younger generations are more likely to believe that flexible packaging is sustainable, and this opens the door for the “Millennial Opportunity.” Millennials say it’s extremely important or absolutely essential that product packaging has a sustainable lifecycle (33 percent); is manufactured with less



energy (33 percent); and has been transported efficiently (32 percent). According to survey responses, 36 percent of millennials say they always or often actively seek out products in sustainable packaging; 37 percent promote the benefits of sustainable packaging to others; and 37 percent check packaging labels for sustainability information. ■

FOR MORE INFORMATION

For more information on the FPA and the sustainability benefits of flexible packaging, contact us at fpa@flexpack.org or 410-694-0800, or visit our website, www.flexpack.org or www.perfectpackaging.org.

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Flexo's Achilles heel and the effect it has on profit, print quality and return on investment.



The most overriding, yet underestimated factor in Flexo over the past 30 years is the negative effect not keeping the anilox clean enough has on the whole of the business. From top to bottom, side to side, who would think that such a very small amount of contamination on an innocuous little roll could cause so much upset and cost so much money and lost profit?

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Why an Alphasonics System Means Simplicity in the COVID-19 Era



In our personal and professional lives, COVID-19 has meant adapting to a whole new way of life. As we navigate lockdowns and social distancing, the world has turned digital. The 'New Normal' has seen us rely on video conferencing and phone calls to be able to operate in our day to day working lives.

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Roundtable Q&A: ROLL CLEANING & MAINTENANCE



Our Vice President Chris Jones speaks to PFFC about roll cleaning and maintenance within flexo.

The scientific approach to flexography places emphasis on controlling the inputs to the print process to ensure the very best quality outputs.

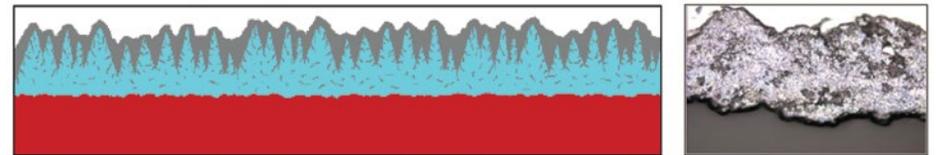
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New Coating Technology Providing Real Solutions in Flexible Packaging

By William Bradley, Business Development at American Roller

Flexible packaging is one of the most diverse industries in the world with products that are used every day, by millions of people, in the residential and commercial sectors. Often associated with “converting,” it has evolved over the decades refining many different manufacturing processes. As different as these processes are, they all have some similar challenges. Most deal with sticky adhesives, **inks** and specialty **coatings** to effectively produce a finished product. To help mitigate production issues caused by these required processes, many are turning to the use of specially applied coatings to **rollers** in critical positions.

Dual Coating Diagram



Total Coating Thickness: ~0.004" - ~0.006"

- Release Polymer Thickness: 20% - 40% of total coating thickness
- Metal Matrix Thickness: 60% - 80% of total coating thickness
- Base Material

Challenges That Lead to Buildup on Roller Surfaces

Over the last 10 years, this industry has been challenged to produce more efficiently and effectively, yet faster than ever before. The bar is continually being set higher, especially in markets such as personal hygiene, medical and food. Technology advancements introduce new chemistries and resins; however this creates additional challenges in production. With competitive markets driving the price, scrap, remakes and downtime are a daily concern. Over the years, new coating technology has provided real solutions for the flexible packaging industry.

Buildup on rollers is a top concern when working with sticky adhesives, inks and specialty coatings that are required for finished products. This buildup is a widely known culprit of many production and quality issues within flexible packaging leading to:

- Drag / slippage / wrinkles;
- Web breaks;
- Roller surface defects created from knife cuts;
- Web substrate defects; and
- Wrap ups.

The root cause creating these issues can stem from aggressive and difficult adhesive coatings, to migratory or non-migratory slip agents creating tack or slip. Foreign debris such as dust, dirt and other particles can then adhere to the web, ultimately contaminating the final product.

Financial Impact

The financial impact of these challenges is significant, sometimes costing \$1000s to 10s of thousands of dollars monthly. When rollers are damaged, they must be reground or replaced. Often new rollers are purchased due to lack of spares; however, the surface is still soft steel or aluminum. With the same surface, you can ultimately expect the same results. When buildup on roller surfaces becomes significant, the first indicator is defects on the web. This usually creates a series of events where operators go on a fact finding mission, trying to discover where the defects are coming from. Sometimes the line is brought down, and unscheduled cleaning and maintenance is required. This is very costly with lost time, wasted product and longer run times required to meet production goals.

Dual-Layer Coating Technology

Dual-layer plasma coating systems are used in many industries for enhanced properties on critical parts and rollers. Wide selections of systems are available to meet the application and production needs.

These dual-layer systems can provide critical rollers with enhanced release surfaces, better traction control, and in some cases, both. Other advantages include added wear resistance and FDA compliancy required in food and direct contact products.

The diagram below breaks down the mechanics of a dual-layer coating system. The base metal matrix displayed in



blue, is the foundation. The hardness with the base metal matrix can range from 58-72 Rockwell C. To put into perspective, standard steel and aluminum roller hardness is only in the 20s on the Rockwell scale.

The release polymer, displayed in grey, is installed in a secondary process. Notice, not only does the polymer fill in the valleys of the base matrix, but it also is embedded in the porosity. When the polymer cures, it creates a mechanical bond throughout the coating, not just the top. This is critical for durability. The web runs on the peaks of the coating, therefore the polymer embedded in the porosity and valleys is protected from abrasion and wear. As the coating wears over an extended period of time, the polymer continues to be

exposed. While these release polymers provide great non-stick performance, they also provide unmatched traction in the most demanding applications, helping control the web from the entrance to exit points on the roller.

Low COF vs High COF

Plasma coatings can be blended to create hundreds of systems, but in flexible packaging there are really only two “must know” coating systems that are used for your parts and rollers. Both of these systems are dual-layer and processed in the same way, however they have very different performance factors.

The first is a Low COF coating, smooth and very similar

In higher temperature environments, coatings can provide great benefits, especially when processing uncured adhesives and inks.

to your Teflon cooking skillet at home. This system is used for applications varying from ink and adhesive pans, to entrance and exit rollers used in curing ovens. It does not provide additional grip or traction; however it is very easy to clean if buildup occurs.

The second system is a High COF coating with reduced surface area. The added release polymer provides two major performance enhancements, a non-stick surface and added grip for traction and control over the web.

Combating the Buildup and Knife Cuts

In higher temperature environments, coatings can provide great benefits, especially when processing uncured adhesives

and inks. Plasma coatings can withstand up to 400°F constant, some reaching 550°F.

Ideally the use of dual-layer traction coatings is to eliminate buildup and wrap ups, but when it does occur, the use of knives does not damage the coating surface as it would with softer metal and aluminum substrates. A series of tests were conducted on plasma coating surfaces using extensive pressure mimicking a real world situation where operators would use knives to cut wrap ups off a roller surface. These sample coatings were evaluated by an independent research firm, confirming that residue on the surface was actually particles from the knife. This was expected, as the surface of the coating is much harder than most knives used in the industry. Dual-layer plasma coating systems extend the life of your roller by eliminating damage and wear. Maintenance and downtime will be reduced, maximizing your production efficiency and cost savings. ■

ABOUT THE AUTHOR

William Bradley began his career with [American Roller](#) right out of college. For 18 years he was in the field as a technical account manager covering multiple territories in the U.S. For the last five years he has managed national accounts and lead the salesforce in bringing solutions to the American Roller customer base. In 2020, William moved into business development where his focus is educating customers and the American Roller sales staff on innovative ways to improve the manufacturing process.

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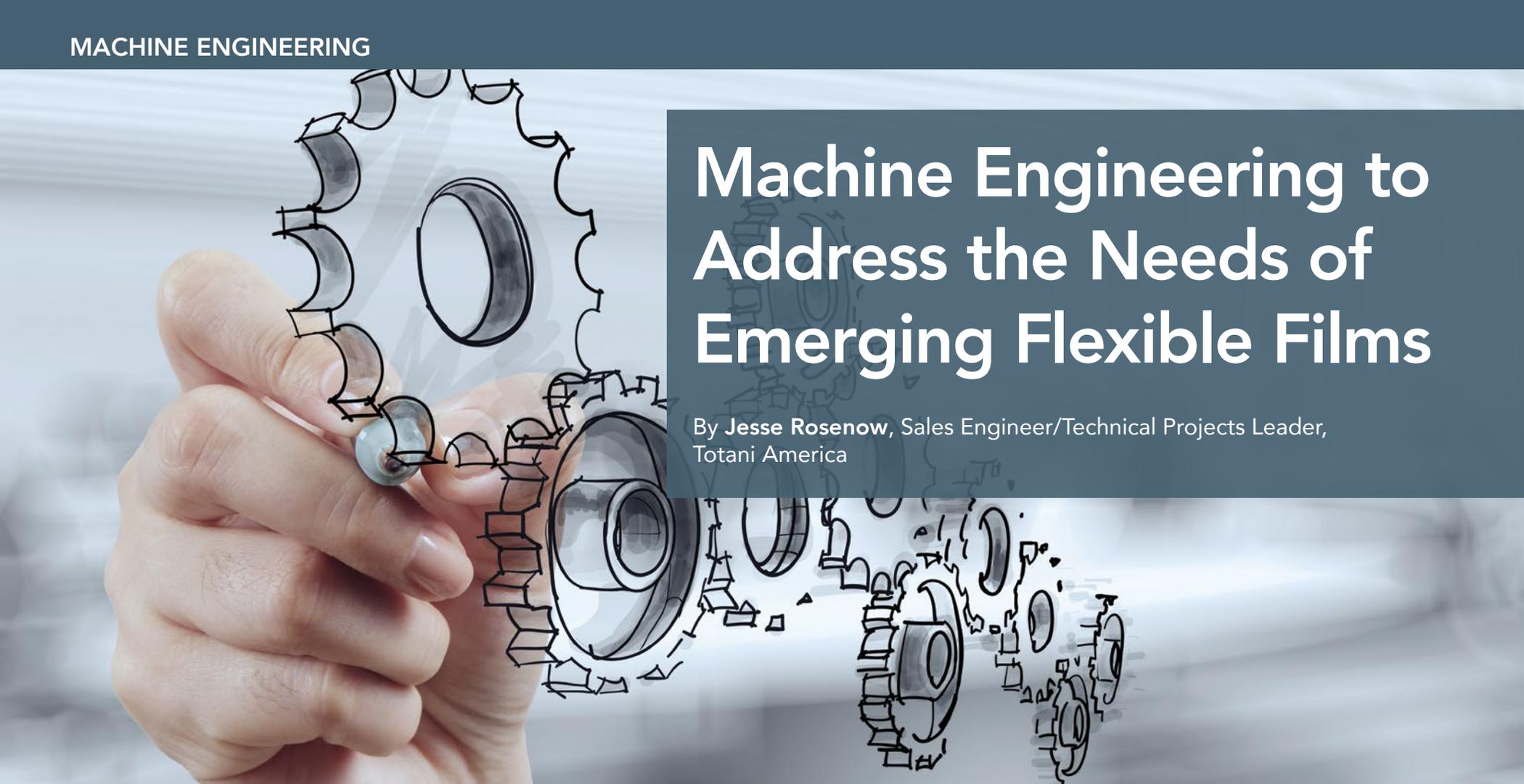
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Machine Engineering to Address the Needs of Emerging Flexible Films

By Jesse Rosenow, Sales Engineer/Technical Projects Leader,
Totani America

As you walk down a grocery store aisle, it seems that everywhere you look – from pet food to snacks to cleaning products – flexible packaging is on display. In fact, the [Flexible Packaging Association](#) (FPA) found that flexible packaging is the second largest packaging segment in the U.S., as it makes up approximately 19 percent of the country's \$170 billion market.

While this presents great opportunities for packaging converters, it creates additional pressure to align with consumers' ever-changing needs. As flexible packaging and the films used in production continue to evolve and adapt, converters can begin to optimize their operations through streamlined set up and reduced scrap, which is all being made possible through recent equipment innovations.



New, automated equipment features help converters address new pain points created by emerging films.

Growing Demand for Flexible Packaging

The continued rise of eCommerce purchasing, the public's growing focus on sustainability, and brand sustainability goals have bolstered the use of flexible packaging across many markets. Throughout the first half of 2020, we've seen an increased demand for flexible pouches that help foods maintain freshness during the eCommerce shipping process. Enhanced freshness and extended shelf life are major selling points for flexible pouches, and the COVID-19 pandemic has further shown the need for this packaging.

As industry trends continue to evolve, converters must

create packaging that aligns with the latest consumer and brand needs, all while continuing to provide a quality solution that is cost-effective. To help address new customer pain points, we've seen the emergence of new film structures, such as fully recyclable films. As new materials hit the market, converters should work with machine OEMs that can engineer equipment to efficiently and effectively convert films with minimum waste and reduced changeover times.

Engineering Machines to Suit Your Needs

Consider recently developed packaging films that have structures which are easier to recycle, commonly known as "mono"

materials. While this is a major win for the flexible packaging industry in terms of sustainability, the introduction of these new film technologies on existing machinery can cause difficulties for converters. New materials often require different tension and registration control than existing conventional films, which can lead to longer downtime between runs and increased scrap. Because of this, OEMs are strategically engineering machines to tackle these challenges, as advances in tension control and registration are vital in improving print registration with emerging film technology.

For example, when starting a new run, the film material



As flexible packaging continues to rise in popularity, consumers and brands are demanding even greater sustainability and reliability from flexible pouches.

often stretches, distorting graphics and creating inconsistency in the packaging. This means each run wastes material until proper registration is reached on that specific machine start. New machine technology enables converters to better control tension at the start of the run and bring films into registration more quickly. This helps produce quality pouches in shorter amounts of time – reducing scrap material. This not only offers cost-savings for the facility but also limits the amount of waste produced and energy consumed.

As packaging equipment continues to innovate, converters

can take advantage of equipment automation capabilities. At a basic level, automated features could provide operator support while setting up runs with digital aids, such as indicator lights for preset pouch sizes and quick releases that automatically adjust to different film materials. This both creates optimized set up for quicker turnaround and limits operator error for reductions in wasted time and product.

Fully automated equipment is already a reality. As technology advances and converters become more comfortable with new machine designs, operators can simply select a job within the equipment’s computer interface, and the machine automatically adjusts to the specifications for that run, vastly reducing the margin of error and scrap material.

Be Prepared with Innovative Machines

Converters can proactively prepare to meet their customers’ needs by working with OEMs that have the engineering capabilities to adapt to new film structures. By optimizing the printing process through automated technology, converters are able to create added operator efficiency for faster change-overs, cost savings, and reduced waste. Investing in innovative converting equipment can help facilities prepare to handle emerging films and continue to create quality pouches on-time and on-budget.

ABOUT THE AUTHOR

Jesse Rosenow is a sales engineer/technical projects manager at Totani America. Rosenow has worked at Totani America for over eight years.

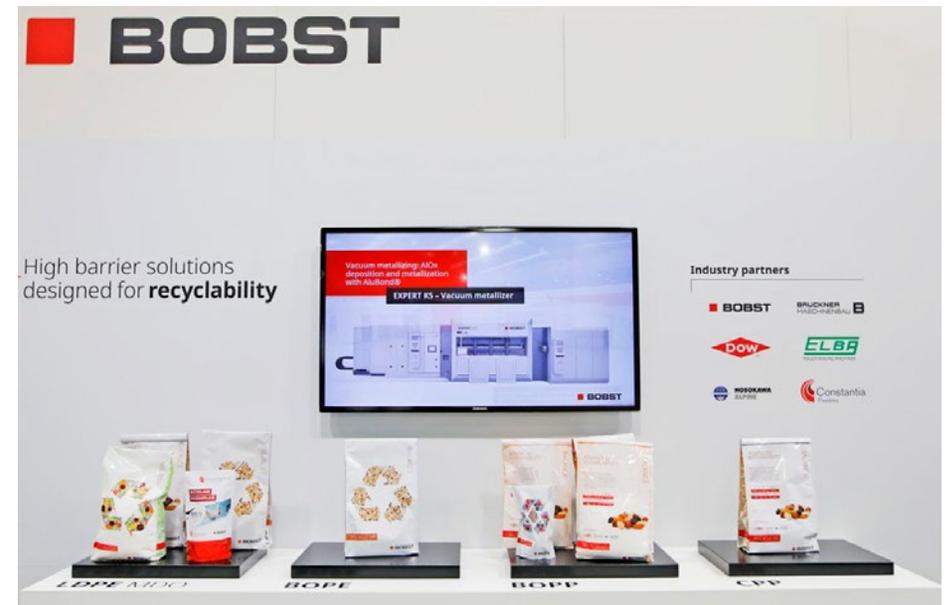
Is it the End for Non-Recyclable Plastic Packaging?

By BOBST

Nothing perhaps defines our consumer-driven society of recent decades better than plastic. Its growth in production since the 1950s – largely driven by packaging – has been extraordinary. We now produce a staggering 300 million tons of it each year. But we know that the qualities that make plastic so suited for packaging – its versatility, durability, impermeability – also make it very environmentally unfriendly; non-biodegradable and challenging to recycle.

Increasingly alarming projections around environmental damage have changed attitudes and focused minds in recent years. Environmentally friendly alternatives to plastic are no longer a nice-to-have aspiration for companies; they are absolutely essential. Indeed, the major brands – PepsiCo, Unilever, Nestlé, Mars, Coca Cola Company to name a few – are challenging their suppliers to achieve the target of 100 percent reusable, recyclable or compostable packaging by 2025.

“The shift in mindset over the last two years has been huge,” says Eric Pavone, business development director, BU Web-fed at BOBST. “We’ve gone past the tipping point. The



The different types of mono-material high barrier pouches exhibited on the BOBST stand at K 2019



The Competence center of Bobst Manchester in the UK which houses an EXPERT K5 vacuum metallizer and a NOVA CO 750 AIOx top coater supports the industry transformation towards new processes and substrates for barrier applications and coating technologies.

sense of urgency, the political will, the resources – they are all now in place. The packaging industry is at the forefront of making alternatives a reality, and the progress in innovation in a short space of time has been extraordinary.”

Finding alternatives to plastic is difficult, particularly for food packaging, for which high barrier protection against oxygen and water is an absolute must. Any alternative needs to have similar properties in terms of preservation and protection, versatility and price – all while being visually pleasing to

the consumer. And part of the challenge can be found in the variability of [flexible plastic packaging](#) – stand-up pouches, sachets, [films](#), bags, liners, wraps and so on – which generally consist of several layers of different types of plastics.

“Plastic is not one single material – it comes in many different varieties, and most flexible packaging is a combination of them,” said Pavone. “When we talk about replacing plastic, we are actually talking about replacing a wide range of [laminate materials](#), including PET (polyethylene terephthalate), aluminium foil, PVC, PA (polyamide), and they all have their different benefits for different types of packaging. Finding high barrier alternatives with only one polymer rather than several is not easy, but we believe we are in the process of making a breakthrough.”

A Watershed Moment for Our Oceans?

Because it is the combination of various polymers that makes recycling plastics so difficult, the ultimate aim is to create functional mono polymer materials. But mono polymers traditionally don’t perform to the level of multi polymer materials. And even if serviceable mono polymers are found, they need to be produced with the same machine efficiency throughout the whole value chain of packaging.

At a recent tradeshow for the plastics and rubber industry ([K 2019](#)), BOBST along with several partner companies presented what they believe to be a watershed moment – new high barrier mono-materials laminate solutions designed for recyclability.

The project involved using different high barrier mono-materials structures, each one thoroughly tested to guarantee all industry requirements were met in terms of processability, barrier, safety and optical quality. The different types of mono-material standup pouches on show – machine direction-oriented (MDO) polyethylene, biaxially oriented polyethylene (BOPE), biaxially oriented polypropylene (BOPP) and cast polypropylene (CPP) – were the outcome of considerable investment and intense research by the partners.

“The feedback we heard at K 2019 in response to these new high barrier mono-materials laminates was phenomenal,” said Pavone. “Sustainability is such a clear focus for so many companies – now that we are starting to demonstrate tangible solutions, the excitement is really growing. But we appreciate that this is a journey.”

A Partnership Bringing Real Progress

The development of these new high barrier mono-materials laminates came about thanks to an industry partnership of some of the leading innovators in the field. BOBST is one of the world’s leading suppliers of substrate processing, printing and converting equipment and services for the label, flexible packaging, folding carton and corrugated industries. It provided the use of its Competence Centers for high barrier, printing and lamination to test the viability of the new materials throughout the production process.

The other partners in the project include Dow, a PE resin supplier for the first step in the production chain, Brückner



Eric Pavone, business development director, BOBST, Business Unit Web-fed.

Maschinenbau for the production of the biaxial stretched polypropylene and polyolefin-based films, Hosokawa Alpine for the production of MDO linear density polyethylene (LDPE), ELBA to convert the finished reels into pouches, and Constantia Flexibles to produce metallized high barrier LDPE standup pouches.

As well as its state-of-the-art Competence Centers, BOBST brings expertise in metallization and clear coating technology. The use of new high barrier mono-materials laminates means the metallizer design has had to change to improve the processing ability of these materials. BOBST has pioneered im-

provements in metallization and clear coating technology to allow mono polymer materials to be processed.

“We feel we have a huge amount of expertise to contribute to this enterprise, but we wanted to establish partnerships because it makes sense to pool our engineering know-how” said Pavone. “This is one of the most urgent challenges facing the world today, so there is no time to try and do it alone. By bringing the best minds together, we are making real progress – fast. Now we want to take these materials to the next level and start producing them on a more industrial scale.”

Are We on Track for 100 Percent Reusable, Recyclable or Compostable Packaging by 2025?

“The high barrier mono-materials laminates revealed at K 2019 were a significant breakthrough, but there are still several stages to get through before such materials are in wide use,” said Pavone. “At [interpack](#) and [drupa](#) this year, BOBST and its partners will announce the exciting next stages, including full high barrier PLA and paper packaging structures, moving us one step closer to our goal.”

In the short term, use of polypropylene (PP) high barrier mono-material laminates represent a ‘lower hanging fruit’ as the industrial solution is available now worldwide. LDPE, MDO and BOPE have greater recyclability potential but still require major research and development time and investment to convert these into industrial-scale operational solutions. But with the huge investments in R&D going into these solutions, the feeling in the industry is positive.

BOBST has pioneered improvements in metallization and clear coating technology to allow mono polymer materials to be processed.

“We are on the right path to developing reusable, recyclable biofilm or paper alternatives to traditional non-recyclable plastic flexible packaging on an industrial scale in the next few years,” said Pavone. “Even just a few years ago this would have been almost unimaginable, but BOBST and its industry partners are making it a reality. We are confident that the work we are doing will ultimately have a tremendous positive impact on the industry and the environment.” ■

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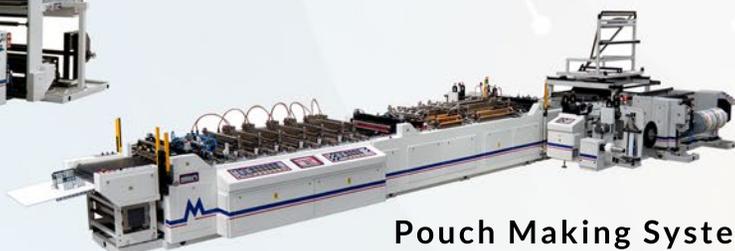
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The Myriad Benefits of Metallized Packaging

By André Gani, Director Sales and Marketing at Terphane



As concern for the environment and the well-being of consumers has become the packaging industry's priority (and rightfully so), it's impossible to ignore the fate of post-consumer packaging or the possible impact raw materials' production may have on the environment. Both the consumer and the packaging value chain are fully aware of the impor-

tance of their roles in this new scenario. Therefore, new and developing packaging technologies must be evaluated for their environmental impacts in the production process and beyond.

Already, rising environmental concerns have driven some countries to replace traditional aluminum-laminated packag-

ing with metallized flexible plastic packaging. For instance, in Brazil almost 100 percent of SUP (stand up pouch) packages for tomato products, are already produced with high barrier metallized polyester films. The migration trend from aluminum laminate to metallized films continues globally, following a strong trend of substituting rigid packages for flexible packaging, especially for pouches. The advantages of this switch are many.

In addition to simplified production process and logistics optimization, the benefits of switching from rigid to flexible packaging include reduction of packaging weight, optimized transport and storage, flexibility of formats and opening/reclosing systems, and more. Empty pouches are lighter and less bulky in transport, taking up less space. There is a 26:1 ratio in the transport of empty glass on trucks compared to empty pouches for packages with the same capacity. It is also very easy to change the packaging size or format in a flexible packaging system. This technological advantage guarantees a greater speed of reaction to new market requirements.

Furthermore, both the food and pharmaceutical industries are attracted by metallized flexible packaging's safe production process. Metallized polyester films provide excellent barriers to moisture and oxygen. Aluminum laminated packaging can present flex cracking and pin holes, an effect that is minimized in metallized film which is also less susceptible to breakage during handling.

A study conducted by the Flexible Packaging Association (FPA), shows that pouches have a smaller carbon footprint.

For example, the production of a 230g pouch for beverages consumes between 0.54 and 2.90 mega joules less energy compared to a rigid package – glass or plastic – with the same capacity and the CO2 emission is lower during the production process of a pouch versus other types of packaging. The FPA study further provides evidence that pouches have a more efficient product to packaging rate and occupy less space in landfills than other types of packaging.

For consumers, there is one big advantage that everyone can support: cost savings. Flexible packaging tends to be more economical than rigid, with the same, and sometimes even better, barrier properties. Whether you are a consumer, manufacturer, or brand owner, it's impossible to deny that pouches with metallized polyester films offer several competitive advantages.

Each innovation accelerates the growth of the flexible packaging. With the advancement of production technologies and materials, the value proposition of metallized films only increases, offering the benefits of shelf-ready appearance, increased shelf life, and logistic and environmental efficiencies. ■

ABOUT THE AUTHOR

André Gani is Terphane's director sales and marketing. Terphane has a comprehensive range of solutions that facilitate the transition from aluminum packaging to flexible options, with several processes and products for all packaging needs. Visit www.terphane.com to learn more.

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Defining Reliability

When it comes to total cost of ownership and profitability, all pouch equipment is **not** created equal

By **Scott Fuller**, Product Line Manager, Pouch and Intermittent-Motion Equipment

Defining Reliability When it comes to total cost of ownership and profitability, all pouch equipment is not created equal

Reliability is the number one desired machine attribute for pouch converters, but this deceptively simple statement can sometimes be misunderstood.

“Reliability isn’t only about the sturdiness of the machine,” says Scott Fuller, Pouch Equipment Product Line Manager for CMD. “It means that production will be reliable; that pouches will be of consistent quality; that



The CMD 760-SUP Stand-Up Pouch system sports a new, compact, space-saving design.

downtime, especially unexpected stoppages, are minimized. It's about product going out the door, on time, at the expected cost."

Similar to how we expect our automobiles to be reliable; to consistently run and give us as little grief as possible, converters expect reliability in their equipment.

What are some gauges for reliability?

1. The machine should be well-made – designed to provide process stability for many years – and to do so without frequent operator intervention.

Obviously, to achieve optimal pay-back the equipment should last for years, even decades. But in that time, the stability of the process should not degrade. Some of this comes from the overall build quality of the machine, the raw materials and the workmanship. Some of this comes from the design of the machine.

- Some converters have the good fortune of having in-house experts that keep lesser quality machinery running. They fix and tinker, adjusting springs and settings, sometimes even rebuilding sections of machines to get them to operate to the converter's needs and expectations. This is a vanishing skill set, and more often than not, converters are faced with a shrinking labor pool of skilled workers. Entry-level operators and frequent turnover require a reliable machine that runs efficiently and effectively, day in and day out, without the need for frequent maintenance or monitoring.

"The long-term stability and sustained operation of the machine needs to be considered at the design stage, says Fuller. "Our machine includes a simplified mechanical design, with fewer moving parts resulting in fewer opportunities for wear."

- Fewer maintenance touchpoints mean that you spend less time with preventive maintenance tasks.
- Those maintenance touchpoints that do remain have been completely re-designed to make the tasks much easier and faster to complete. (i.e., guillotine knife blade replacements in 20-minutes, simplified nip-roll changes, fewer lubrication points, easier access to the various workspaces on the machine, etc.)

2. The machine should offer low total cost of ownership

A reliable pouch machine benefits your bottom line by offering truly shorter changeovers and a meaningful reduction in downtime associated with both preventive maintenance tasks, as well as unplanned downtime. The end result is that your machine will be producing sellable product for more of the time, resulting in a quicker payback and lower cost of ownership.

"Being in tune with our customers' goals, which most often included optimizing machine uptime – (that time when the machine is producing sellable product) – allowed CMD to offer a machine with the best payback and lowest total cost of ownership in the industry," says Fuller.

3. The machine performs to expectations, which includes keeping scrap rates to a specified threshold. It must reliably produce consistently high-quality pouches

The machine is an asset, a tool, that needs to deliver a specific amount of product in a specified amount of time (throughput.) It must have speed capabilities that will maximize productivity. Meaning, speed is important as long as quality is assured, and waste is minimized (efficiency.) It is expected to make a quality pouch, and is relied upon to play its part in getting orders out the door on time.

“CMD pouch machines have been designed with one goal in mind; to provide the most stable process available in the market today, requiring fewer operator interventions during a production run,” says Fuller, explaining that this results in less scrap during the run.

“Our proprietary registration averaging system means that fewer tooling adjustments are needed as the roll is consumed, and CMD’s patented Intelligent Sealing Technology provides the most consistent and repeatable sealing process available in the industry,” he adds. “In addition, our 3-D laser alignment step delivers the most consistent web-control available, while our proprietary web-tension management system allows the user to balance web tension from the roll to the cut-off, providing fewer instances of ‘feature-drift,’” says Fuller. All of these features contribute to a robust and reliable process that can be repeated from roll-to-roll and lot-to-lot.

CMD’s unwind web clamp is one of many features that save waste and ensure precise web handling.



CMD’s unwind web clamp is one of many features that save waste and ensure precise web handling.

4. The machine is reliably simple to operate and maintain

Keeping operation and maintenance simple is a sure way to cut costs and save money.

Easy to operate touch screen controls and machine adjustments contribute to product quality, minimize downtime and support a reliable process control. Pouch equipment has come a long way, and quick-change features, like CMD’s easily accessible seal dies for under-2-minute changes, significantly reduced start-up and changeover time.



Quick seal die changes – most often in under 2 minutes – are one of CMD's fast-changeover design features.

“Challenges with recruiting and retaining operators makes simple set-up and operation imperative,” says Fuller. “Machinery that is straightforward to operate, with recipes and adjustments that are easily repeated, help mitigate the challenges converters face with operator turnover.”

Affordable/accessible spare parts and reliable, responsive service are also an important component to simplified, reliable operation. Converters look for low cost and accessibility for common wear parts. The OEM that provides reliable, consultative service, including providing the tools for preventive maintenance to avoid unscheduled downtime, is a valuable partner.

“Our customers have been pleasantly surprised by our spare parts pricing, choosing to purchase easily sourced parts through us, rather than a third-party supplier. This strategy of pricing spare parts competitively was deliberately developed as we defined our identity as a true supplier partner; that partnership means that our customers can rely on CMD as their ‘one-stop-shop’. Maintenance managers tell us they appreciate that they don’t need to manage so many different suppliers.” ■

CMD designs and manufactures high-performance equipment for blown-film and flexible package converting, including patented high-speed rotary drawtape trash bag lines, pre-made pouch packaging equipment, film and bag folders and winders. CMD also designs and manufactures systems, and provides station monitoring, training and service for the CNG (Compressed Natural Gas) and RNG (Renewable Natural Gas) refueling markets.

Custom engineering and product development are available from the 45,000 sq. ft. Technology Center. Experienced CMD technical service representatives are available for field service, installation and extended process validation.

A professionally staffed parts department offers quick turn-around to minimize downtime. An established supplier with more than 30 years’ experience, CMD serves a global marketplace and manufactures all equipment to exacting standards at USA facilities.

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