GLOBAL TRENDS
L&L's global team analyzes key markets around the world

PRESS TRENDS
Increasing automation and new hybrid formats reinvent conventional and digital presses

AUTOMATION AND ARTIFICIAL INTELLIGENCE
Opportunities and challenges in the label and package printing industry

WLA WINNERS
L9 announces World Label Awards winners
Engineered precision

- Designed to tailor the needs of the everyday converter
- Dynamic servo control with centralized programming
- Tighter registration and preregistration control
- More flexibility for in-line operations

ENDLESS OPPORTUNITIES

Learn more about the newest class of the Mark Andy Performance Series at markandy.com
LABELING A SMARTER FUTURE.

At UPM Raflatac, we help a world of products and brands express themselves and stand out. Unleashing the potential in people and businesses through world-class labeling solutions. How can we help your company make an impact and seize new opportunities?

Innovative & sustainable labeling solutions

FIND THE RIGHT SOLUTION FOR YOUR BRAND AT UPMRAFLATAC.COM
Redefining Digital Labels.

What digital converting was meant to be!

Gallus Labelfire 340
Digital printing, from start to finish.

Offering the industries best inkjet image quality at native 1200 dpi and fully integrating flexo and screen printing processes, makes the Gallus Labelfire 340 a one of kind industrial-strength digital label converting solution. [www.gallus-group.com](http://www.gallus-group.com)
TAU 330 RSC

THE NEW BENCHMARK IN DIGITAL LABEL PRINTING

> 1200 x 1200 dpi Print Resolution
> 8 UV Inkjet Color Stations (CMYK-W-OGV)
> 78 lin. Meters/Min. Printing Speed
> Available as Stand-alone press or in-line with OMET Xjet hybrid press

durst-group.com/label
Rotary Screen Label Solutions
for outstanding print effects.

Add an exciting new dimension to your label printing capabilities. Rapid, reliable and economical production of the ‘non-label look’, metallic colours, strong opaques, tactile warning symbols, special varnishes, scratch cards. All possible with SPGPrints’ Rotary Screen Printing Solutions.

RotaMesh®
The ultimate workhorse.
- High accuracy, perfect registration
- Increased press uptime
- High-speed printing
- Constant quality
- Re-usable

RotaPlate®
Stronger, Sharper, Superior.
- Long lifetime
- Extremely sturdy
- Less downtime
- No back-up screen required
- Re-use for repeat orders

RSI®
Single-colour Printing Unit.
- Rotary Screen Integration (RSI®)
- Easy integration on your press
- Great flexibility
- Printing width up to 900 mm
- Broad spectrum of applications

SPGPrints offers solutions that cover every step in the label printing workflow.
Find out what we can do to innovate your business www.spgprints.com
**Features**

**09 Mergers and acquisitions**
During M&A, communicating your value to investors is crucial, writes Bob Cronin of *The Open Approach*

**10 Label Academy**
Mike Fairley outlines the titles available in the Label Academy, and which new editions are on the horizon

**14 Press trends**
With conventional and digital print and coating technologies converging, Andy Thomas-Emans looks at how automation and hybrid systems are shaping the future of the narrow web industry

---

**Regional round-ups**

**29 Europe**
The European label market has fully bounced back from the financial crisis, as Andy Thomas-Emans reports

**33 North America**
Chelsea McDougall analyzes the latest trends affecting the North American label market

**37 China**
The Chinese label industry's focus is shifting from capacity expansion to innovation and differentiation, reports Yolanda Wang

---

**World Label Awards**

**50 L9 announces 2017 World Label Awards winners**

**57 World Label Awards – Best of the Best**

**59 Global label associations**

---

**Industry suppliers**

**60 Industry suppliers by category**

---

**Contents**

---
RotaPlate® Dev & Dry
The missing link in your Pre-press.

Standardise quality and accelerate throughput in your Pre-press workflow.
SPGPrints' RotaPlate Dev & Dry system provides a fast, ergonomic and automated means of developing and drying RotaPlate rotary screens, for narrow web applications, in a one-step, quality-assured process. RotaPlate Dev & Dry is an essential tool that completes your CIS system and also improves the quality having a conventional process. In a cycle lasting between three and four minutes, the exposed RotaPlate is thoroughly washed out with recyclable water, then automatically air-dried without manual intervention. Once the process is complete, the screen is immediately ready for final assembly.

Benefits
RotaPlate Dev & Dry is designed for RotaPlate meshes. The Dev & Dry comes with an intuitive human-machine interface that requires only the push of the touchscreen to activate. RotaPlate Dev & Dry is a complete, sustainable system that integrates with advanced imaging devices, to provide optimum quality rotary screens in a standardized workflow for repeatable, high-quality results.

- Time savings; the process is fully automated and up to 4 times faster
- Uniform and reproducible quality; no human interference
- No water spray in your pre-press room; the process is fully encapsulated

Specifications:
- Power requirement 400V 50/60Hz 3-phase
- 2m² Footprint
- Suitable for RotaPlate specs
- Pre-settings for RotaPlate types

SPGPrints offers solutions that cover every step in the label printing workflow
Find out what we can do to innovate your business  www.spgprints.com
Editor’s Welcome 2019

This year closes with a generally upbeat mood across the global label industry. The geographical area we have the best statistics for – the European pressure-sensitive market – has fully recovered in volume terms from the severe losses suffered in the financial crisis of 2009-11, and is on a growth curve for Q1 2019.

And although the rate of growth has slowed in developing markets, it has remained steady in both Indian and Chinese powerhouses. The materials suppliers have continued to invest in both countries and in the wider Asia-Pacific region in production and distribution facilities.

There are, of course, clouds on the horizon: continued slowdown in the Chinese economy; the unknown disruption Brexit will cause in Europe; the escalating trade war between the US and China.

But the label industry has proven remarkably resilient and will continue to reflect growth across multiple market sectors, most particularly e-commerce, household improvement (in developing markets) and supply chain/logistics.

Other threats come from the environmental flank. Liner waste continues to be an issue the industry needs to solve. The major materials suppliers and trade associations are doing their best in putting together schemes which bring together waste processors and end users of PS materials. But up to now this has hardly made a dent on the wider problem.

Then there is the growing war on single-use plastics, which could threaten large swathes of the filmic label market as collateral damage.

Rising raw materials costs translating into higher costs for substrates, inks and coatings presents another threat for hard-pressed label converters.

There are solutions to these problems. Progress is being made in finding commercial uses for recycled liner waste. A good case in point is L’Oreal’s ‘zero landfill’ pledge which most recently saw Avery Dennison partner with the company in Australia to collect and send the glassine waste to India, where it is turned into industrial paper. And there are a range of technology solutions for cleanly removing labels from plastics containers, allowing them to be recycled (if they can be collected) without contamination of the waste stream.

Rising materials and consumables costs can be mitigated by reduce waste at the converter. Options include better planning to reduce materials changeovers on press; more efficient makereadies; swapping shorter run jobs onto digital presses, and a lot more.

Expect to see more deployment of these technologies in the year ahead.

This year has also been a fascinating one in technology terms. We have seen the continued growth in the hybrid press category, not only in terms of flexo press suppliers partnering with digital engine manufacturers, but also a new class of rail-mounted single or multi-color retrofit units for conventional presses. From the digital side, manufacturers of print engines are increasingly offering the option of fully in-line operation, often partnering with finishing machine manufacturers with skills in in-line converting and web handling.

In developing markets we are seeing increased demands for higher quality packaging on the back of the continued expansion of the organized retail sector. This is pushing local brands to compete with the decoration standards of the multinationals, which in turn is pushing the requirement for higher quality equipment – particularly inspection equipment. This is a trend we saw clearly at the Labelexpo Southeast Asia and India shows and expect it to be repeated at next year’s Labelexpo Asia in Shanghai.

Perhaps the most important trend we expect to see in 2019 is the implementation of Industry 4.0. What this means in practice is Big Data and artificial intelligence being deployed to help operators set jobs up and monitor them in real time, as well as machines which set themselves up automatically using data stored in factory-wide MIS systems. Once fully understood and integrated this could lead to a surge in converter productivity, a reduction in wastage more efficient and profitable use of machine assets.

Andy Thomas-Emans
Director, strategic development, Labels & Labeling and Labelexpo

Although the rate of growth has slowed in developing markets, it has remained steady in both Indian and Chinese powerhouses.
EXTENDED COLOR GAMUT: INNOVATING IN LABEL AND PACKAGING PRINTING

- Total graphic flexibility to reproduce unlimited colors on the same job
- Repeatability and predictability of print results without changing inks or anilox rollers
- Reduced lead time and inventory
- Widest range of applications.

BOBST unique Digital Flexo and Excellence technologies enable operation through a fully integrated digital workflow to provide:
- Highly efficient, quality driven operation
- Profitable production with all run lengths
- Press operation from touchscreen
- All-in-one-pass printing and converting.

Watch M6 live

www.bobst.com
Sellers today are in the driver’s seat. Lending rates are still low (but rising), multiples have gone up, and a number of areas are garnering significant investor attention. But the process of selling is complicated. There are a number of stages to go through and crucial obstacles to navigate along the way. 

Even if you have a hot property in a high-demand segment, your effectiveness at each sell stage is important. Getting through these wisely – with expert and experienced support – will ensure your best outcome. The typical sale process follows six stages: 1) Preparing an offering memorandum; 2) Creating a management presentation; 3) Determining your best acquirers; 4) Selecting your match; 5) Performing due diligence; 6) Closing the deal.

The first stage is critical. Most businesses are shipped with an offering memorandum. And thus, a compelling one is key. An offering memorandum communicates your company’s value – and gets it considered. It’s all about the story. Your ability to engage and entice investors will determine which opportunities are available to you. This article, thus, focuses on creating an offering memorandum so you can get the best return from your hard work.

Since you lead your company every day and are very close to it, you may think this would be straightforward. But be assured that it’s very complex. It can be especially difficult for an investor who may not work in labels or packaging to grasp what it will take to grow to the next level. The most effective way to communicate complex messages is through a story. Your acquirer must clearly understand your key strengths. Moreover, they must be able to grasp what new growth is possible – or your own or in combination with another entity.

Your offering memorandum starts with an executive summary. This is a 3- to 7-page (or so) discussion about the business. It’s a synthesis of the entire offering memorandum, highlighting your greatest attributes – as they relate to a potential acquirer. We put these together all the time for our clients and have found certain keys to success. The most effective executive summaries cover the following.

How did you start? Purchasers want to know where you came from. They want to see your initial plan and objectives, and how well they were aligned with the market at that time. They also want to see how you planned and grew over the years, so that they can gauge the validity of your future vision. Accommodating cyclical change can be perceived favorably, while rebrands and larger risk-taking may be seen in a different light. Purchasers will be determining how solid your foundations are to assure them of their investment.

Who helped you build your business? You’re selling your business. “Your ability to engage and entice investors will determine which opportunities are available to you”

Thus, it’s not a story about what you did, but rather what your people have accomplished and are prepared to achieve in the future. Great people make a great business. Acquirers want to make sure that a solid team would remain to propel the operation. If you have staffers with unique abilities, call out their experience and potential. Having such assets will yield you greater reward.

Why are you selling? Reasons behind a sale can tell a buyer how much risk is at hand. If you’re selling only because of age or retirement, it’s a lot different than selling because of an outdated product line or income volatility. Take on this question honestly and openly. Also, show how you’ve made plans to manage your exit. Any underlying motives and issues will be discovered in due diligence.

What has the business become? Businesses evolve over time, and your original goals are likely not your goals for the present or future. Provide an accurate pinpoint of who you are today. Be specific in describing your company’s strengths, weaknesses, assets, and obstacles. And be able to back up any claims.

What can the business be in the future? Working off the previous question will be a discussion of where the company can expand. Think through multiple trajectories, and clearly articulate how each of these can be attained. Growth plans may vary based on whether you sell to a strategic acquirer or private equity investor. Will the business need capital to expand? Can it rapidly grow with entry into a new channel? What does it need to reach its full potential? Explain how you believe new ownership will make the business stronger. This will strengthen your position to sell.

As you work through these questions, remember to stay positive, but realistic. Provide clear details, research, statistics and other evidence to substantiate your assertions. Remember to customize your document to your target investor or acquirer. With a relevant and compelling story, you can get your business noticed. More important, you can maximize interest to enhance value and bring your transaction to a successful and profitable conclusion.

Bob Cronin is managing partner of The Open Approach, an M&A firm focused on the world of print. www.theopenapproach.net
RAPID EXPANSION IN THE LABEL ACADEMY

MIKE FAIRLEY OUTLINES THE TITLES AVAILABLE IN THE LABEL ACADEMY, AND WHICH NEW EDITIONS ARE ON THE HORIZON

One of the major challenges that today’s label companies have is how to attract young people into the industry, educate and train them in the latest technologies processes, and then retain them on a longer-term basis. The industry generally has a problem with its outdated image in many schools and colleges. It needs to change this perception. It needs to excite and stimulate the millennial and post millennial generations that are familiar with and use sophisticated communications, media and digital technology on a daily basis – the very things the industry needs for its longer-term future.

At the same time, the industry needs to bring in new people to run existing conventional press technology and retrain and retain its existing workers and bring them up to speed with new and future requirements.

It was a combination of all these factors that lead to the creation of the Label Academy some five years ago. Consisting of a series of self-study modules, combining free access to relevant articles and videos with paid books, the Academy has developed rapidly with some 14 books now available – plus the Encyclopedia of Labels and the History of Labels book – with more in the pipeline. A short summary of all the currently available titles is set out on these pages.

The aim with these books is for each label company to build its own in-house library of titles, all made available for employees to read and study, either individually, or as part of a defined company induction, training and employee development program.

Master classes and workshops have also been introduced as part of the Label Academy program, providing expert information, education and guidance on topics that now include Shrink Sleeve Technology, Management Information Systems and Workflow Automation and Inks, Coatings and Varnishes.

“The industry needs to excite and stimulate the millennial and post-millennial generations that are familiar with and use sophisticated communication, media and digital technology on a daily basis – the very things the industry needs for its longer-term future”

What comes next?
The next new Label Academy book title to be published – expected to be available by the end of the year – will be Flexible Packaging: Materials, technology, markets and applications.

This will be followed in the Spring of 2019 by a completely revised and updated version of the Encyclopedia of Brand Protection and Security Labeling, while a brand-new title, Label Substrates: Their manufacture, characteristics and performance is in the early stages of research and writing. These new editions will bring the total Label Academy books up to the 20 titles that were originally conceived some six years ago.

A review of the existing and new titles is currently underway to establish a regular program of the books that require periodic updating and to look at what new titles might be required for the future. Perhaps there is a need for a Careers in the Label Industry book that converters can provide to schools, colleges and for recruitment purposes? Any readers with ideas or suggestions for new titles can email them to Natalie Tamiollo at Labelexpo (ntamiollo@labelexpo.com).
Label Academy books currently available

**Digital Label and Package Printing: Terminology, technology, materials, management and performance**

Digital Label and Package Printing incorporates much of the combined knowledge of many of the world’s leading experts to provide a comprehensive guide to understanding how these technologies work — whether electrophotographic liquid and dry toner or inkjet. It also explains the enhanced requirements that digital printing brings to color management, origination and pre-press, workflow, demands on substrates, digital analog and laser finishing, and how converters should look to manage and market the digital printing operation.

**Management Information Systems and Workflow Automation**

To fulfil the needs of modern label and package printing production, a large number of management information systems (MIS), specialized and niche software solutions and evolving hardware have been developed. While their positive impact on profitability and competitive advantage is undeniable, many have very specific applications. Choosing which is suitable for your operation is a time-consuming and challenging process and getting it wrong can be a costly mistake. Expert guidance can be found in this book.

**Inks, Coatings and Varnishes: A guide to manufacture, handling and performance**

Inks need to fulfil multiple functions and roles: they must be safe to handle and use by the converter, must coat a printing plate, yet release easily onto a wide range of different paper and filmic substrates; they must not deform or crack during post-print converting processes involving heat and pressure, or on shrinkable materials; they must resist damage from rubbing and jostling on high speed filling lines and during transit and stacking; and they must remain robust and readable throughout storage and handling by the final end user, whether consumer or industrial. This book covers all these subjects.

**Shrink Sleeve Technology**

Technological advances have vastly expanded the market for shrink sleeve labels. Today, full body decoration, 360-degree branding, the potential to decorate complex and intricate shapes, the ability to add tamper evidence, abrasion resistance and waterproof printed images are all possible due to constantly developing technology. Shrink sleeve label printing uses a variety of different films, with different degrees of shrink capability. Converters need knowledge of each of these films, along with the image distortion processes, and the shrinkability and performance requirements of inks — all explained in the book.

**Environmental Performance and Sustainable Labeling: Become a ‘greener’ label converter and user**

This book provides label converters and industry suppliers with information about the environment, sustainability, climate change and waste debate as it affects the label industry, and reviews the legislation, guidelines, directives, protocols and industry initiatives that have been introduced over the past decade.

**Conventional Label Printing Processes: Letterpress, lithography, flexography, screen, gravure and combination printing**

A valuable resource for explaining the principles of each of the main conventional printing processes used in the production of labels as well as the types of printing equipment used. Although conventional printing is under pressure from digital processes, it remains a potent force in the sector. It is therefore important to have a fundamental understanding of each process, the mechanics behind them and how they are evolving and changing.

**Label Design and Origination: Repro and pre-press processes**

Written to examines the developments that have taken place in the prepress arena and explores in detail the progress of a typical label job from design through to its arrival on the printing press. The design to print process is quite complex and there are many stages to ensuring that the final printed label meets the expectations of the brand owner. Excellent communication and co-operation between the designer, printer and brand owner are an essential element in delivering a successful result and supply.

**Die-cutting and Tooling: A guide to the manufacture and use of cutting, embossing and foiling dies, anvils and cylinders**

This book explains the complex and vital role die-cutting and tooling plays. Through a series of detailed explanations, photographs, diagrams and charts, the author provides a detailed look at modern tooling technology — how the tools are manufactured, their use and applications, how they should be handled and stored. It includes a section on troubleshooting on the production line and a glossary of terms to ensure any unknown phrases are quickly understood within context.

**Codes and Coding Technology: A guide to understanding barcode symbology, types of codes, reading and verification equipment and industry standards**

An up-to-date guide to understanding current barcode symbology, types of codes, scanning and verification equipment, printing technology, and industry standards. Includes
Label Embellishments and Special Applications: Exploring the techniques and processes used for adding decorative finishes and functionality to labels
Written to explain in detail all current methods of label enhancement. It begins with a thorough review of the more traditional methods such as foiling, embossing and novel printing techniques, and introduces new technologies and innovations including the use of smart and smart active materials, developments in multi-web manufacturing and the introduction of electronics.

Label Dispensing and Application Technology
This book aims to answer key questions around label dispensing and application technology. How is it possible to separate pressure-sensitive face material from the silicone backing? How can labels be placed around corners or into recesses? How are products moved into the correct position for labeling, held steady or rotated on the label application line? Also included is a comprehensive troubleshooting guide for the applicator line.

Brand Protection, Security Labeling and Packaging: Technologies and strategies for optimum product protection
Hundreds of brand protection and security labeling solutions are detailed and explained in the book, including the latest hi-tech methods, such as RFID, taggants, electronic article surveillance (EAS) techniques and holograms. Guidance on developing brand protection and security labeling systems and procedures is also provided.

Product Decoration Technologies: Understanding the primary methods for decorating a product
This book explores the wide variety of product decoration technologies in use today, highlighting their unique characteristics and helping in their identification. It enables the reader to gain a comprehensive insight into the whole decorative process as it relates to consumer packaging.

The Cold
Franklin Adhesives & Polymers is pleased to display two new acrylic all-temperature permanent adhesives that were built to withstand the cold. Covinax 299-00 & Covinax 289-00 are APE-free and formaldehyde-free. The dry adhesive films are extremely clear and will not yellow due to age or UV absorption. Both adhesives are perfect for cold temperature applications, from labels on frozen foods to tape used to seal delivery packages. Visit us at LabelExpo, booth #S55

Yearbook 2019
“The aim with these books is for each label company to build its own in-house library of titles”

– from material selection, print and finishing technology, and to application onto/or integration into the pack itself. The pros and cons of each decoration system are identified, but more importantly, the cost implications underpinning the selection of a particular decoration system are examined.

Label Markets and Applications: A guide to material specifications and regulations for consumer and industrial markets

This title examines each of the main end-user markets in turn. It describes how the label is used to satisfy the consumer, the brand owner and the regulatory authorities in major world markets. It also looks at the changes in label technology, in particular the impact of digital printing, and the ways in which they affect the various end-user sectors.

BENEFITS FOR EMPLOYERS:
• The ability to implement a more professional recruitment, induction and employee development program
• Sales teams can become more knowledgeable and competent in creating a more consultancy-based selling approach to new business
• The possibility of offering a knowledge based career path and employee growth opportunity to encourage employee retention and reduce staff turnover

BENEFITS FOR EMPLOYEES:
• Professional commitment by an existing or potential employer to an employee’s role, education and training
• The possibility of building transferable skills knowledge and competency towards promotion and new job opportunities
• Better understanding of the technology, materials and business processes that they use

All titles can be ordered through the Label Academy website at www.label-academy.com. Special discounts have been agreed for Finat, TLMI and LMAI members.
CONVENTIONAL AND DIGITAL PRESS TRENDS

WITH CONVENTIONAL AND DIGITAL PRINT AND COATING TECHNOLOGIES CONVERGING, ANDY THOMAS-EMANS LOOKS AT HOW AUTOMATION AND HYBRID SYSTEMS ARE SHAPING THE FUTURE OF THE NARROW WEB INDUSTRY

Conventional press trends

Current developments in the flexo press sector point to a blurring of the boundaries between conventional and digital, greatly increasing the range of options open to label converters faced with shorter run lengths and the need for greater production flexibility.

Related to these developments, the last Labelexpo shows in Europe and America revealed a new drive to integrate conventional presses into Industry 4.0 workflows. This means repetitive manual operations are taken over by ‘intelligent’ servo-assisted systems, while press control systems exchange data with factory-wide management information systems (MIS).

Automated pressure setting is a good example of this trend. The technology has moved from wide web CI to narrow/mid-web presses, with Bobst leading the way with its ‘Digital Flexo’ press lines, where cameras continuously monitored the density of a patch of pixels, feeding information back to servo motors. At Labelexpo Americas 2018, automated pressure setting was seen on most major manufacturers’ high-end presses.

Omet announced auto-pressure setting on its XFLEX X6 press line, and Nilpeter demonstrated a range of ‘Clean Hand’ automation technologies on its new FA line, implemented by seven direct drives on each print head. Edale’s FL-3 press was demonstrated at the show with a full AiiR automation package which includes automated pressure setting.

At the show Bobst took flexo automation a step further with a demonstration on an M5 press of simultaneous exchange of plate cylinders followed by a ‘hands free’ makeready with automated pressure and register setting.

Looking forward, we could see other automation technologies make the transition from wide web to the narrow/mid web sector. For example RFID-equipped anilox rolls which allow the press control system to check the correct tooling has been fitted and aid automated inventory management.

Another key Industry 4.0 concept is ‘Big Data’, analyzed and implemented by artificial intelligence systems. The first area we are seeing this become reality is on-press inspection.

Press cameras linked into cloud-based data networks will learn about common print problems and help operators spot them before they happen and either auto-correct press parameters or alert operators to the probable cause.

Data exchange

The final piece in the automation jigsaw will be two-way data exchange between flexo press and MIS. Up to now press control systems have been based on proprietary operating systems, requiring information to be double keyed from the MIS into the press console – for example material type and run length.

This is now starting to change. MPS demonstrated its Talk To Me open interface at the Labelexpo Automation Arena, allowing two-way communication with a Cerm MIS. Bobst demonstrated integration of both its high-end M5 and entry-level, shaft-driven M1 presses into a browser-based Internet of Things (IoT) network, where a number of productivity and bench-marking apps are available.

On the digital side, HP continues to develop its PrintOS cloud-based operating system, which now includes a suite of benchmarking and workflow tools including Site Flow for Labels and Packaging, OEE (Overall Equipment Efficiency) monitoring and EPM Analyzer. PrintOS is open to compatible third party applications, and it was notable that just across the aisle at Labelexpo Americas AB Graphic was demonstrating a cloud-based OEE app which monitors its finishing equipment and ties into the Cerm MIS.

Xeikon is developing its own suite of bespoke apps – the aXelerate services program – and at Labelexpo Americas added an OEE component which automatically collects data from presses and peripheral equipment and shows current productivity status.

An end to operator skills?

Do these developments mean that skilled flexo operators will no longer be needed? Absolutely not. Automated systems will get 98 percent of the way towards an in-specification job set-up, but operator skill will always be required to make those final makeready adjustments before ramping the press to full speed and producing sellable labels.

The key phrase in Industry 4.0 is ‘cyber assisted’. The skilled operator is helped by the intelligent machine to achieve an optimum result. Once the job is running to specification, the intelligent machine monitors itself using sensors to measure and adjust registration, print pressure, web tension, UV lamp power (measured at the web surface), while cameras and sensors check for developing print faults and measure density and color throughout the run. Once the correct number of in-specification labels have been printed, the press can even ramp down automatically – a system already implemented on digital presses.

So the role of the skilled operator changes. They can now monitor multiple machines from a smart mobile interface from any point in the print plant, accessing a wide range of production status information in real time. This frees up time to concentrate on other value-added activities such as assembling the elements for the next job change.
Converting developments

Automation on the print and web transport sections is being matched by more efficient tooling systems at the converting end of the press. We are now seeing the deployment of semi-rotary die-cut systems able to operate at full press speeds of up to 150m/min. The key advantage of semi-rotary is that the same magnetic cylinder is used for every repeat size, and with semi-automatic die loading and ejection on units such as ABC’s Fast Track, there is minimal downtime between jobs. Mark Andy’s system allows the die module to be switched between semi- and full rotary operation depending on run length.

Nilpeter is currently developing the semi-rotary die station seen for the first time on its Panorama hybrid press at Labelexpo for the new FA series press. Omet has its own take on the die-cutting format issue. The company’s MonoTwin Cut system uses differential pacing between two fixed diameter cylinders to achieve the same result.

The increasing efficiency of highly automated flexo presses married to fixed-palette printing – which eliminates the need for washups between jobs – has seen flexo start to encroach on the shorter run territory of digital. This blurring of lines has only increased with the dawn of the age of the hybrid press.

Hybrid comes of age

With digital printing taking an increasing share of the new press market from the early years of the 21st century, manufacturers of conventional presses felt the need to develop their own digital offering while not throwing away the expertise gained over many years of designing high-specification flexo presses.

The route chosen was to ally with UV inkjet press manufacturers and incorporate their print engines into existing flexo press lines. As the chemistries of flexo and digital UV inks are similar, digital has slotted easily into the in-line format of the narrow web industry.

This is not a new phenomenon of course. Nilpeter launched its Caslon program in 2012 with FFEI as its inkjet integration partner. But the first generation of single-pass inkjet systems were not really matched by fixed-palette printing – which eliminates the need for shutters; it emits less heat directly to the web surface; it is more efficient at curing some colors, such as whites; and has a longer lamp life without progressive degradation.

On the other hand, the inks tend to be more expensive and less widely available from all suppliers in complete sets including varnishes, and there is still heat to remove from the back of the array, either by water or air cooling.

An approach which takes advantage of the strengths and weaknesses of each technology is interchangeable lamp housings, which allow converters to quickly convert a chosen station to UV LED then back to arc without replacing the whole lamp assembly on the press and without changing power supply. Both GEW and IST have demonstrated the technology at successive Labelexpos.

In digital printing UV LED is already used for ‘pinning’ colors to increase print definition before a final arc UV cure. UV LED as a complete curing solution was first used on the Epson L-6034VW and at Labelexpo Epson launched its successor, the L-6534, which uses Epson’s own PrecisionCore head technology. The press prints CMYK+W and includes an in-line UV LED cured digital varnish station. An arc UV final cure can be switched in if required.

We should also mention Electron Beam curing, a technology up to now reserved for wider web packaging presses. At Labelexpo Europe EB curing made an appearance in miniaturized form on the Uteco Gaia inkjet press, developed as a joint project with ebeam Technologies and INX Digital. The key benefit of EB for food packaging applications is there are no photoinitiators to migrate into the product.

 opacity of today’s UV white inks certainly matches flexo whites and in some cases approaches screen.

Surveying hybrid press sales, it is interesting to note the wide range of configurations – indeed, we can say that there is no standard configuration for a hybrid press. Most presses in the field are equipped with a flexo unit before the digital engine, either for priming the substrate or to put down a first white, and 1-2 flexo units after the digital, allowing a spot color and/or varnishing.

But some converters are ordering configurations which more closely resemble a full scale conventional press with up to eight flexo units and a digital engine inserted in the middle. In these cases the press can be used either as a digital press – bypassing the flexo print units – or as a digital press for shorter run jobs, as well as any combination in between.

Given the higher costs of UV inkjet inks, hybrid printing holds out the possibility to print far longer runs than is economic with digital-only presses. With an appropriate color management system, the dominant color in an image can printed with a UV flexo spot ink, while the digital engine handles variable print and complementary color elements. Similarly, using a flexo applied first down white is more economical than using a digital White on longer runs. The development of faster semi-rotary die-cutting
units which we noted above also helps the efficiency of hybrid presses on both longer and short runs.

**Flexo with digital capability**

Another way to achieve hybrid capabilities on a flexo press is to rail mount a full web width mono or full color module.

Labelexpo Americas saw a range of mono retrofit units such as the Graphium Printbar. This uses Xaar’s latest 1003 heads specified for either fine detail or heavier coatings and capable of operation at a maximum speed of 246ft/min (although high opacity white runs at 40m/min).

Domino showed its established K600i mono unit, while Mark Andy demonstrated its latest Digital Screen Plus model on the new P7E press. FujiFilm introduced the Samba 42000 Printbar at Labelexpo Europe in 2017, imaging at 1,200 DPI at speeds up to 90m/min.

Web-wide mono retrofit modules have a range of possible applications. They can act as a ‘digital black plate’ providing a variable data capability; can apply a first down white; or act as a variable imaging spot color station. Properly specified inkjet heads capable of handling higher viscosity functional coatings without clogging allow converters to apply variably imaged spot matte or gloss varnish, all without any plates and with variable imaging possible at each point.

In Chicago we even saw the addition of mono retrofit modules to a hybrid press, demonstrated by Edale and its US partner FujiFilm on the Graphium X hybrid press. At the show Gallus announced that its Digital Embellishment Unit, now undergoing beta testing as part of the Gallus Labelfire hybrid press, could be made available as a module on an ECS or Labelmaster flexo press at some point.

**Digital presses**

The debate about whether off-line or in-line finishing is more efficient continues in the digital press market. From recent Labelexpo shows we see a clear trend for digital press manufacturers to offer in-line operation as an option. Examples include the HP Indigo GEM inkjet embellishment unit, seen in-line with a 6900 press at Labelexpo Americas, and now also incorporating digital cold foil.

Xeikon has long been an advocate of in-line processing and at Labelexpo Americas demonstrated both in-line laser in the Automation Arena and an all-in-one entry level print and converting system called Label Discovery combining a Xeikon 3000 press and entryCoat finisher — which can also be used as a near line finisher. ColorDyne’s compact 2800 Series Mini Laser Pro launched at Labelexpo Americas includes full color print, lamination and laser die-cutting in one line.

Konica Minolta demonstrated its AccurioLabel 190 dry-toner electrophotographic digital press at Labelexpo with a near-line CM finishing unit, but is also looking at options for fully integrated finishing.

**Special requirements**

With half of all PS label volume in industrial labels, mostly using variable print, digital press suppliers have pushed hard the robustness of their print processes for harsh environment applications.

HP Indigo showed at Labelexpo Americas its Pack Ready for Labels program, using a new primer which gives added robustness now gaining serious traction with multi-plant installations. US-based digital-only converter ePac, for example, is building an entire business around digital printing of flexible packaging at locations across the US with multiple 20000 presses. HP’s Pack Ready ecosystem includes all elements required for a flexible packaging workflow, including primers, lamination, dedicated opaque white station and finishing units. At Labelexpo Americas the company demonstrated an in-line shrink sleeve label line based around a 20000 press and the ILC760, a new 30in integrated top coating, slitting and rewinding unit developed by AB Graphic, capable of using industry standard water-based and UV coatings.

**Wider webs**

The last forty years of narrow web development have seen presses get progressively wider, from 165 and 210mm to a standard 330mm, then progressively to 430 and 520mm. 430mm is widely considered to be the practical width for pressure-sensitive labels because of the weight of the die-cutting cylinder.

But the rapid development of filmic labels – particularly shrink sleeves – and an emerging market in short run flexible packaging have driven the development of wider machines capable of handling these larger format products. This emerging ‘mid web’ market centers on the 670mm/26in width up to a maximum of around 900mm.

Examples of this approach include the Bobst M6, Omet Varyflex and MPS EXL packaging press. At Labelexpo Americas Mark Andy showed a print unit from its new P9E press, a 26in (670mm) machine designed for efficient converting of shrink sleeves and flexible packaging. The press does not use sleeves, but rather traditional – albeit especially light-weighted – cylinders. Pressure settings can be stored for future retrieval. This press clearly builds on Mark Andy’s Comco heritage in a format pioneered by Mark Hermann’s company in the late 1990s.

On the digital side, HP Indigo’s mid web 20000 press has revolutionized the short run flexible packaging market and is
The EkoCure® family of products
Cutting edge LED UV Inks, Coatings & Adhesives - available today!

LED curing will make your business much more competitive and offers total lower applied cost in UV Flexo!

UV LED Inks provide clear and tangible benefits, such as:
- Up to 50% reduction of energy cost
- Consistent cure control with ability to run presses faster

Flint Group Narrow Web offers full range of LED curings inks...
- EkoCure® F - The original standard UV LED Flexo range especially designed for PSL
- EkoCure® XS - Designed for Shrink applications with excellent adhesions, print quality, color strength & shrink ability
- EkoCure® ANCORA - Low Migration UV LED Flexo Ink with superb press performance & adhesion. Ideal for food packaging applications
- EkoCure® Metallic inks - Highest metallic effect and improved curing at high speeds
- ...A variety of high quality UV LED products

Do you want to know more about our UV LED products? Scan the QR code and get directed to flintgrp.com
to labels printed on the 6900 press. Flint announced at the show UL certification, in partnership with Flexcon, for the Panther UV inkjet technology which drives its PX press series.

Another area of active development for UV inkjet is low migration. This has taken a major R&D effort since LM formulations require larger particle sizes and it is critical these do not clog the fine jetting nozzles. An example is Screen’s Truepress Jet L350UVLM press seen at Labelexpo Americas, which uses the company’s LM inkset combined with nitrogen inerting to flush oxygen from the curing chamber.

**Water-based developments**

Not all inkjet developments have involved UV. Memjet has made strides in water-based technology for its OEM partners resulting in a new pigment-based aqueous ink system called Duralink. The technology was first run out with a Chinese OEM partner, but Colordyne also announced plans at Labelexpo Americas for a second-generation 3600 Series AQ retrofit module using Duralink technology to be rolled out in the second half of 2019. (Colordyne is not abandoning development of its UV retrofit systems. At the show it also announced a partnership with UV ink developer Kao Collins to offer bespoke formulations to users of the 3600 Series UV-Retrofit unit which will increase printhead life, improve durability and give a wider color gamut).

Konica Minolta has partnered with Memjet and at Labelexpo displayed equipment developed by the two companies which Konica Minolta will sell to label converters. The Precision Label Series 475i – shown with the matching PKG-675L laminator – uses Memjet technology to produce finished corrugated materials, including folding cartons, displays and traditional cardboard boxes. It allows short-run, customized and personalized packaging production for label converters looking to diversify.

Epson has its own take on aqueous technology with its popular L-4033AW, now superseded by the L-4533AW, which was launched at Labelexpo Americas. The show machine included a beta version of an in-line spectrophotometer and a robotic automated head cleaning system. Currently, spectrophotometric calibration is carried out off-line. The new system will allow fully closed loop color management.

**New players**

A significant trend is the addition of new players to the digital label press sector. Wide web CI specialist Uteco has made a major foray into the narrow web market in partnership with ebeam Technologies and INX Digital, demonstrating the modular Gaia electron beam inkjet printer. The press offers food compliant short run print capability for the food and pharma markets and prints on a wide range of substrates including aluminum, paper and films at speeds up to 320ft/min. It can be configured up to 36 inches wide.

Uteco has also collaborated with Kodak to bring to market the 650mm-wide Sapphire Evo digital press for labels and flexible packaging. The press uses water-based inks to print on films and
YOU'RE WELCOME to discover our ThermoFlexX in detail on www.thermoflexx.com

Press trends | 19

YOU'RE THE DRIVER
Some are ruled, and some rule.

Yearbook 2019
Almost every day our homes and daily lives are getting smarter, becoming more intelligent and getting ever more automated – to a large degree without us actually understanding or knowing how it is all taking place.

Whether it is the use of smart phones, smart meters, automated payment systems, travel ticketing, navigation, search engines, online assistants (Alexa and Siri), self-driving cars or lawnmowers, smart lighting, social media apps or just ordering an Uber, all are impacted to some degree by artificial or machine intelligence, automated processes and smart technology.

The label and packaging industries are not immune to such advances. Each year sees new evidence of how artificial (machine) intelligence and automation of workflows, processes and systems is changing the way the industry performs, improving efficiencies, reducing lead times and wastage, enhancing quality inspection, and better serving its brand, retail and other customers.

Visitors to Labelexpo Europe 2017 and Labelexpo Americas 2018 cannot fail to have seen how many booths were showing equipment or systems for automating various press operations, unwinding, slitting and rewinding machines and other types of finishing or end operation equipment, the pre-press processes and proofing operations, or workflow automation managed by increasingly sophisticated MIS.

High level of interest in Automation Arena
Indeed, such is the interest by the industry in what is taking place, that over the last two Labelexpo shows some 2,500 visitors have attended the Automation Arena demonstrations of the automated label, shrink sleeve and package printing plants of tomorrow – with a level of automation, machine intelligence, performance and profitability never before attempted.

The overall aim of the Automation Arenas has been to show converters that with the latest integrated workflow technology and machine intelligence it is now easier than ever to automate and process many more jobs in the same throughput time, with fewer errors, with 100 percent quality and barcode inspection, incorporate automated press and finishing set-up, and all with the same number of employees.

At the most recent Labelexpo Americas show there was a unique collaboration between 14 key label industry suppliers, with a Cerm Management Information System (MIS) as the central hub. A global provider of business management and automated software for both traditional and digital label narrow web converters, Cerm teamed with international industry partners to develop end-to-end automation solutions for self-adhesive labels and shrink sleeves that now cover the entire value chain.

During the automation demonstrations, the Cerm MIS was
seen processing and managing the whole automated workflow, integrating with an Esko Software Platform supporting end-to-end label workflow. This platform firstly changed the selected digital label design being produced on Avery Dennison self-adhesive labelstock printed on a Xeikon LDU digital press – and personalized the artwork with the customer’s name, created rules for inspection, and initiated a proof for customer approval – followed by calling-up the shrink sleeve graphics and plates for printing on an MPS EF-APC UV flexo press.

The Esko Software Platform 18 being demonstrated provided a comprehensive set of software solutions for design and pre-press, workflow automation, color management, and supply chain collaboration. With a focus on cost control and productivity optimization, the platform supported an end-to-end workflow with hyper realistic 3D viewing, also on mobile devices, web collaboration, PDF editing, content management, and quality assurance tools all providing a sophisticated user experience.

**Digital printing, laser cutting and inspection line**

Once approval of the label and barcode was received back from an audience selected ‘customer,’ files were sent from the Esko Software Platform to a Xeikon X-800 digital front end, in turn integrated with a Xeikon LDU laser die-cutting unit that was able to ‘needlessly’ switch over between two jobs.

The Xeikon LDU applied a Flint Group Digicoat GP gloss varnish, laser die-cut, slit and rewound the labels, enabling frequent job changeovers with limited or no set-up time. Integration with the Xeikon Front-End via the Vectorizer module provided step and repeat and printing, with AVT 100 percent automation inspection files, job identification and die-cutting, and finishing barcodes for the in-line laser die-cutting, slitting and turret rewinding. The finished rolls off the press were barcoded for roll identification of the finished product.

A Matho Cuttobag CB-100.1 waste management system on the Xeikon press was used to cut, transport and collect the production waste into a waste disposal system, while cores for both presses were being cut on a WLE fully automatic core cutter. The cutter read a barcode from a label printed on a label printer close to the cutter. This requested job cutting instructions from the MIS, while the label was reused to identify the cores per job.

**Non-stop UV flexo sleeve printing**

With the Xeikon press set-up and running, the MPS EF-APC operator was already reading his MIS-generated job ticket on screen, enabling him to check that plates, tools, inks and substrate had been delivered, and changing the unwind roll using a Kocher + Beck UR Precision U440 butt splicer. This highly innovative technology featured a fully servo-driven unit with intelligent Data Link communication features, providing non-stop press operation and increased throughput. Because it was a reprint, the MIS provided the press with the appropriate set-up file stored, avoiding any search time lost by the operator.

Each roll loaded was scanned and became fully traceable throughout the whole process, interacting with the Cerm system in order to provide real-time production values. A Cerm inspection command was also sent to AVT’s automatic 100 percent print inspection system for detection of spots, streaks and color on each print deck – providing fully connective technology ready for Industry 4.0 implementation – which registered any defects during printing, but at this stage did not act on them.

Especially designed for labels, sleeves and flexible packaging production, the MPS EF-APC press operated with no gear cylinder connection, intelligent pressure-setting and zero waste roll change, and featured UV, hot-air and LED drying technology, enabling users to print on a wide variety of substrates, including thin film, paper, carton board, shrink sleeves, in-mold, tubes and flexible packaging. It printed on a Klockner Pentalabel shrink film using Zeller + Gmelin’s 32 Series Nuvaflex range of UV flexo inks developed specifically for sleeve production.

Next to ‘standard integrated’ machine automation, the EF-APC also offers an automation package for further extended (additional) print automation; the APC Package provides automated servo control of all relevant press settings. The package can be configured for the ultimate in print setting control to further increase productivity on the EF press. Automation extends to sleeve seaming and finishing.

**Automation extended to sleeve seaming and finishing**

Printed rolls coming off the MPS press were identified with an ID barcode generated by the MIS which, when scanned, enabled an electronic instruction file to automatically set-up shear slitting on a Grafotronic H12 high-speed inspection slitter rewinder, as well as providing the location for any bad products according to AVT scanning instructions.

An AVT camera on the Grafotronic automatically stopped the machine whenever a defective label was detected in the printed reel so that any necessary repairs could take place. The final, ‘clean’ and slit roll was then rewound and a barcoded label applied to the reel. As this roll transferred to an AccraSeam FC fully continuous shrink sleeve forming and seaming machine, equipped with a fully-automatic table with seam positioning, the barcode was scanned and the instruction

*“Over the last two Labelexpo shows some 2,500 visitors have attended the Automation Arena demonstrations of the automated label, shrink sleeve and package printing plants of tomorrow”*
file from the code read and used to automatically set-up the forming and seaming operation.

After set-up, forming, seaming and rewinding of the, now, lay-flat shrink sleeve web, the Accraply ASFC wrote a log file and created a barcoded label which was applied to the lay-flat seam roll coming from the seamer. This barcode was, in turn, then used to identify and provide file information as the seam roll was transferred to an Accraply DM12 Shrink Sleeve Inspector, a compact vertical seaming inspection machine used for lay-flat quality checking.

The DM12 inspected for seam integrity, solvent presence, lay flat and for any splicing/flag detections, enabling any bad sleeves to be thrown out before rewinding the lay-flat ‘clean’ web. At the end of the quality check the Accraply system provided a printed report for each roll that gives the customer all the necessary QC information required.

Final rolls carrying barcoded identity information, whether from the Xeikon or the MPS/Accraply production lines, were scanned into a warehouse location, a picking list prepared through the Cerm MIS, a delivery note printed, and e-mail notification sent to the customer and invoicing launched. All of the production data is permanently collected by the MIS and presented in a Smart Business Intelligence system, whether it is about sales, production or profitability.

Ongoing automation developments
While the Automation Arena demonstrations provided an exciting glimpse into tomorrow’s automated label plant, other Labelexpo exhibitors were also busily taking further automation steps. Ink logistics provider GSE, for example, showed enhanced ink management software that enables converters to minimize ink-related waste, providing improved ink yields, enhanced reporting and reduced set-up times.

Color management workflow technology from Baldwin also now automates the process of delivering absolute consistency from prepress-to-press, shift-to-shift, and plant-to-plant. Reporting tools enable quality managers to deliver full production overviews to print buyers and brand owners.

Another interesting development has been the acquisition of Blue Software by Esko. This is targeted at further reducing time-to-market, cost and quality risk in the end-to-end label and packaging chain. Software and hardware systems now digitalize, automate and connect the whole label and packaging and development chain, from virtual 3D design concept all the way to printed, finished and labeled packs and in store displays.

Put together the Automation Arenas, Label Academy ‘MIS and workflow automation’ textbook and Master Classes, plus new industry vendor advances, are rapidly taking the industry into a new level of machine intelligence and automation that offers the possibility of providing new and unprecedented levels of service to brand owners, retailers and other customers.

What is now in sight is the ability to take a brand owners materials specifications, label or pack compliance, BRC, ISO and QC requirements, sustainability demands, etc, and bring them all into one automated label production and workflow system that will automatically print and then generate all the necessary compliance or sustainability certification documents to be automatically sent to the customer when the job is shipped.

Such certification might include materials FSC or recyclability, color match and color consistency, printability tests undertaken, UV ink cure, materials run, ink and substrate wastage, percentage waste sent for recycling, exact finished label count, 100 percent label inspection, and much more.

A need for standards and protocols
However, to get to this stage, more industry vendors will undoubtedly need to be brought into the automation process. There also seems to be a need for a more specific common label industry JDF/JMF language, standards and protocols; a requirement for ‘interoperability conformance specification’ with ‘best practices’ between the two parts of the workflow (eg between MIS and pre-press); and maybe a certification process to guarantee the level of the solution supplier (and not having to discuss every time).

Why is this needed? Well, at the moment, not all label industry vendors are CIJ4 members and/or do not use a JDF standard. Maybe the label and package printing industry suppliers need to establish their own JDF forum or workgroup to discuss the pros and cons of JMF as it specifically relates to the label and package printing sectors, review the new XJDF proposals and how they relate to the industry, and see if they need to be even more simplified, modified or to become more complete.

Yes, there is a standard already for the graphical industry, but if more label and package printing materials, equipment and systems suppliers were to become involved in study and work groups, then the industry can become even more creative in the future.

Almost every day our homes and daily lives are getting smarter, becoming more intelligent and getting even more automated”

UV ink cure, materials run, ink and substrate wastage, percentage waste sent for recycling, exact finished label count, 100 percent label inspection, and much more.

A need for standards and protocols
However, to get to this stage, more industry vendors will undoubtedly need to be brought into the automation process. There also seems to be a need for a more specific common label industry JDF/JMF language, standards and protocols; a requirement for ‘interoperability conformance specification’ with ‘best practices’ between the two parts of the workflow (eg between MIS and pre-press); and maybe a certification process to guarantee the level of the solution supplier (and not having to discuss every time).

Why is this needed? Well, at the moment, not all label industry vendors are CIJ4 members and/or do not use a JDF standard. Maybe the label and package printing industry suppliers need to establish their own JDF forum or workgroup to discuss the pros and cons of JMF as it specifically relates to the label and package print sectors, review the new XJDF proposals and how they relate to the industry, and see if they need to be even more simplified, modified or to become more complete.

Yes, there is a standard already for the graphical industry, but if more label and package printing materials, equipment and systems suppliers were to become involved in study and work groups, then the industry can become even more creative in the future.

Read more from Mike Fairley at www.labelsandlabeling.com/contributors/michael-fairley
TAKE THE NEXT STEPS IN YOUR LABEL AND PACKAGE PRINTING CAREER

WWW.LABEL-ACADEMY.COM
solutions you can trust

Our market-leading finishing equipment is used every day, throughout the world, to produce labels and packaging of the very highest quality.

abgint.com
Increased awareness about plastics pollution, particularly related to our oceans, has catalyzed a renaissance in the demand for a cradle to cradle, or closed-loop, packaging infrastructure. With systems as they currently stand, and products and packaging designed to be thrown away, pollution is inevitable.

Post-consumer plastics must be successfully recoverable through a viable infrastructure and have a valuable end-use in order to move to a closed-loop Circular Economy. Also imperative is a steady supply of post-consumer content with a consistent quality grade.

Current global recycling rates for plastics are low, with 14 percent collected and ten percent effectively recycled, according to the World Economic Forum. In the US, the rate for PET is just over 29 percent in 2017 according to NAPCOR’s (National Association for PET Container Resources) most recent data. These rates of collection need to improve, and such is the intention of SPC’s on-pack How2Recycle label, informing consumers on how best to dispose of their used single-use containers. Improved quality can be achieved by taking a holistic approach to packaging material selection, including the label construction, understanding what’s available on the market and using verified data to guide adoption at concept and design stages.

Proper end-to-end infrastructure with ample capacity, and positive material value, are the most cumbersome barriers to a closed-loop plastics economy. The first step in knocking down these barriers is an agreed, common set of standards and shared definitions across the value chain.

Harmonized definition of plastics recyclability
Plastics Recycling Europe (PRE) and The Association of Plastic Recyclers (APR), two of the leading international organizations representing plastics recyclers, have developed a global definition governing the use of the term ‘recyclable’ as it relates to plastics packaging and products. PRE and APR consider a product recyclable when it meets the following four conditions:

1. The product must be made with a plastic that is collected for recycling, has market value and/or is supported by a legislatively mandated program
2. The product must be sorted and aggregated into defined streams for recycling processes
3. The product can be processed and reclaimed/recycled with commercial recycling processes
4. The recycled plastic becomes a raw material that is used in the production of new products

This definition of recyclability is intended to be the foundation for establishing a Global Plastics Protocol to provide a common target, to overcome existing fragmentation and to enable the creation of effective markets. The Global Plastics Protocol is part of the New Plastics Economy initiative which has grown to include 250 signatories to its Global Commitment across government, NGO and value chain stakeholders. The New Plastics Economy Global Commitment aligns signatories to work towards a broad set of goals to reduce plastics pollution: eliminate problematic or unnecessary plastic packaging, and move from single-use to reuse packaging models; innovate to ensure 100 percent of plastic packaging can be easily and safely reused, recycled, or composted by 2025; circulate the plastic produced by significantly increasing the amount of plastics reused or recycled and made into new packaging or products.

Ton Emans, president of PRE, explains: ‘We need the appropriate audiences to understand what is necessary to label a product or package “recyclable”. We have seen many announcements regarding legislative measures on plastics products and pledges by the industry committing to making products recyclable. We welcome these commitments and encourage others to follow using this harmonized definition has a guide to reach our global objectives.’

APR endorses the New Plastics Economy Global Commitment. Steve Alexander, president and CEO of APR, says: ‘We look forward to working with the committed companies to create a “new normal” for plastic packaging that embraces recyclability.’

‘New normal’ material selection
SPC’s How2Recycle labeling system directs packaging disposal behavior at a consumer level, and instructs packaging decision
ADHESIVES continue to ask for more. While advancement in research and development of recycle-compatible PS and typically come at a higher cost – yet there is advancement. Adhesives are available on a few key facestocks and liners, have the cleanest PET flake, efficiently removing label material from plastic materials. These resources are referenced in the article What How2Recycle means to our industry published in L&L issue 4.

Recyclability are tools brand owners can use to help make the best label material selection to improve the quality of post-consumer plastic materials. These resources are referenced in the article What How2Recycle means to our industry published in L&L issue 4.

There are a handful of roll material labelstocks available with an adhesive chemistry that meets APR preferences to deliver the cleanest PET flake, efficiently removing label material from plastic particles in the caustic bath of the recycling process. Currently, the adhesives are available on a few key facstocks and liners, have limited performance parameters, are intended for clear PET only, and typically come at a higher cost – yet there is advancement.

Early adopters, including Unilever’s Love Beauty and Planet brand, are using second generation adhesives, while the third iteration is already in development. Roll material manufacturers continue their investment in research and development of recycle-compatible PS material constructions including facstocks that float and advanced adhesives because the market continues to ask for more.

While adoption has been slow thus far, the How2Recycle label is turning into a key influence for CPGs and retailers updating their corporate recyclability goals. More and more SPC member companies are incorporating recyclability into performance reviews which is unlocking motivation inside of decision makers to advance and drive change.

In time, it’s anticipated that the labeling scheme will drive recyclability of a PS label adhesive to be just another principle when it comes to material characteristic required, such as performance, durability and application speeds. In this way the label industry is leading the way to drive a ‘new normal’ in providing a reliable, consistent stream of quality post-consumer recycled (PCR) plastic into the market.

MARKET VALUE
For decades, China has been the largest importer of packaging waste, collecting more than 45 percent of the world’s post-consumer plastics. Other developing nations, too, have historically imported plastic waste from Europe and North America. Starting on January 1, 2018, the flow of our international waste market was greatly impacted when China enacted its National Sword policy, effectively ceasing to accept millions of tons of used packaging – paper, plastics, metals and more. Other Asian countries have tried to accept the demand overflow, to no avail. Their infrastructures do not have the capacity to meet the volume.

This situation has created what some are considering to be a perfect storm for driving wider development of a Circular Economy for post-consumer plastics. Now that the EU and US have lost its largest importer, there’s an influx of PCR plastic in the regions and great need for improved collection and processing infrastructures. Is it possible to hit restart on the existing systems so that products and components are designed to be taken apart and regenerated positively?

The Circular Economy concept is nothing new. Braungart and McDonough published Cradle to cradle (C2C) in 2002, and Life Cycle Analysis as a tool has matured greatly across all realms of manufacturing and product development as a means to shift to a more waste-free, closed-loop trade environment. However, this type of analysis does not include landfill or litter impact, so there’s more work to be done.

The idea of growth decoupled from resource constraints sounds promising, but maybe a little too optimistic in application. Would a Circular Economy be able to soften or even offset the slew of raw material price increases our industry has experienced in 2018? Either way, while there’s progress, there’s still plenty of groundwork involved before it’s a viable business solution.

According to research conducted by the World Economic Forum, if improvements were made both to packaging design and to the systems for managing plastic packaging after use, 50 percent of plastic packaging could be profitably recycled. To lead improvement in profitable plastics recycling, the value chain must drive increased demand for post-consumer recycled content material, and APR is working on this. As this happens, the value stream can continue to count on the development of new label materials and continued collaboration towards this common cradle to cradle goal.

TLMI renames environmental award in honor of Calvin Frost
TLMI’s Environmental Leadership Award has been renamed the Calvin Frost Environmental Leadership Award.

Calvin Frost, founder and chairman of Channeled Resources Group, has been the driving force on sustainability in the label industry since the 1970s. When asked how perception on business and the environment has changed over the years, he says: ‘For the first twenty or so years, it was lip service and not a priority. We were crying on deaf ears. In the last 15 years, there has been a shift. The consumer is concerned about recycling, is eager to learn best practices, and wants to reward businesses that support their values; the major brand owners recognize the shareholder value, and are now sincere and committed.

‘In order to be truly sustainable, concerned decision makers need to make a commitment, accept the financial implications with driving change and invest to improve. Logistics has always been a real problem when it comes to packaging waste or liners. Better systems need to be established to achieve zero landfill objectives.’

TLMI’s Environmental Leadership Award has been renamed the Calvin Frost Environmental Leadership Award.

TLMI’s Environmental Leadership Award has been renamed the Calvin Frost Environmental Leadership Award.
POLAR LabelSystems distinguish themselves by extremely short makeready times and a high degree of productivity with very low staffing levels – without you having to make compromises in terms of quality.

www.polar-mohr.com
www.mohr-shop.com

KEEPPING IT SIMPLE. ONLY A FEW STEPS FOR BEST DIE CUTTING RESULTS.

www.roglersoftware.com

unabhängiges, modulares MIS/ERP
Industrie 4.0
PW-260-RS11C
11-COLOR FULL ROTARY PRESS WITH 2 ROTARY SCREEN UNITS

PW-260-R7C MN TYPE
7-COLOR NON-STOP FULL ROTARY LETTERPRESS
A key indicator of the health of the European label market is provided by Finat’s annual labelstock trends report, and the final figures for 2017 and early 2018 paint an encouraging picture of continued growth.

Total consumption of PS label materials in Europe increased by a healthy 4.7 percent in 2017 – the most recent period we have full figures for – representing an average growth of 5.4 percent since 2013.

Filmic rolls continued their growth at the expense of paper, now forming 26 percent of total demand, compared to just 15 percent in 2000. The growth rate of filmics in 2017 was 8.2 percent, double that of paper rolls, while sheet PS materials continued their longer term decline.

Eastern Europe continues to be the European PS powerhouse, accounting for 22 percent of PS volume – almost double the figure for 2003. South and southeastern Europe were the fastest-growing label markets in absolute volume between 2010 and 2017. During this period all European markets added 1.6 billion sqm of annual consumption, amounting to a growth rate of over 28 percent.

The potential for further growth is clear, since the top 15 label markets in Europe still accounted for 95 percent of total consumption in 2017.

Wider trends
Every year Finat also commissions a study into wider European industry trends (the Radar report), and the findings of the full 2017 survey were presented during the Finat congress in June. A key finding is that brand owners remain positive towards PS labels, planning a 3-5 percent increase in spend, although there is a continued migration to shrink sleeve labels in food, personal care and household chemicals. Almost one quarter of the end user sample stated their intention to move to shrink.

Other key end user trends include a preference for more complex labels – mirroring the fact that most new flexo presses are now built to order. Non-prime labels are increasingly functional or ‘smart’.

Specific sourcing of digital labels is still not a priority for food and beverage brands, though there are indications this could change, with digital label procurement forecast to grow by over 7 percent.

Eastern Europe remains the preferred region for label sourcing, but Africa has now appeared on the radar for the first time.

The highest growth sectors – at over 5 percent – include automotive, consumer durables and industrial chemicals, while pharma, HABA, food and household chemicals slowed compared to 2016.

Turning to productivity, the report concludes that European label industry employees generate an average of €173,000 turnover per person, and total sales of between €110,000 and €210,000.

A new category in the Radar report is the amount of running waste produced during a job, excluding matrix waste. The average wastage figure across Europe is 5-10 percent, with the highest figures in southern and eastern Europe (8-9 percent).

The Radar report showed almost one fifth of the converters surveyed were already producing flexible packaging, a 3 percent year-on-year increase. Around one third of the sample were also printing shrink sleeves. In the category of flexible packaging, not including sleeves and stand-up pouches, there was an astonishing 14 percent year-on-year increase to 27 percent, with a further 8 percent ‘very interested’ in entering the flexpack market.

These figures are confirmed by Labelexpo visitor figures for the last three European shows. Labelexpo asks visitors if they have responsibility for buying flexible packaging-related products, and the number of affirmative answers increased from 37 percent in 2013 to 43 percent in 2017.

European consumer trends all point towards increasing opportunities for label converters in the flexible packaging and shrink sleeve segments: smaller pack sizes for smaller households; single serve and eat-on-the-move products; more varieties and pack customization.
Digital trends
Finat has also launched, through the LPC consultancy, a Digital Press Index to track installation trends in Europe in the broad categories of toner and inkjet/hybrid.

According to LPC’s figures, digital printing now represents 10.5 percent of new press installations in Europe. Out of the 2,300 digital presses installed in Europe, LPC says 71 percent are currently toner-based and 29 percent inkjet/hybrid. Figures collected by LPC for press installs in 2017 show that 59 percent of the 300 digital presses sold in Europe were inkjet/hybrid.

When Finat surveyed converters’ buying intentions for its Radar report, an equal number were aiming to invest in conventional flexo and digital presses. Of those investing in digital, one third intended to buy toner presses and 58 percent inkjet, of which 21 percent chose hybrid.

Looking into what converters intend paying for these digital presses, almost one quarter of the sample will be investing €1m-1.5m – firmly into more advanced flexo press territory.

Turning to European brands’ attitudes to digital print, LPC finds that almost one third of its sample are ‘true believers’ in digital – they have fully integrated digital print into their marketing and logistics operations.

Another 20 percent are ‘unconvinced users’, who have had some success with digital but are held back by higher costs from migrating more products from flexo.

Brands not yet using digital LPC breaks into ‘optimistic’ and ‘pessimistic’. The former represent 35 percent of the sample, and are convinced that at some point digital will work for their organizations; the pessimistic 15 percent simply believe that digital is too disruptive to their working methods and supply chains, despite understanding the technology.

Consolidation
Consolidation continues to affect the European label industry, both among suppliers and converters.

The most significant European consolidation involved leading Italian package printing group Nuceria joining forces with All4Labels to boost the group’s global reach. Through the merger with Nuceria, the All4Labels Group hit a total turnover exceeding €500 million from 29 production facilities across the globe, including the former Rako and X-Label operations in Europe.

Antonio Iannone, founder and managing director of Nuceria Group, takes responsibility for the group’s Italian operations, while Guido Iannone, general manager of Nuceria Group, became a member of the All4Labels global management board and with responsibility for one of the global sales business units.

With its headquarters in Hamburg, Germany, All4Labels was founded in 2016 as a global platform for family owned businesses ‘which share the vision to develop sustainable packaging solutions in a global context, while retaining the flexibility and strength of an owner managed business.’

One of the UK’s leading label converting groups, Reflex Labels, ramped up its acquisition program, adding Sherwood Packaging, MP Logistics, Barcode Tech and Kingsway.

St-Luc Labels & Packaging, headquartered in Nazareth, Belgium, took over Pharmalabel, a Dutch pharmaceutical label specialist, to enhance its one-stop-shop offering. The takeover means St-Luc Labels & Packaging now has four branches in three countries: St-Luc Labels & Packaging (labels, shrink sleeves and flexible packaging) in Belgium, Microbox (folding carton) in France, and Altrif Label (labels and booklets) and Pharmalabel (pharmaceutical packaging) in the Netherlands.

On the supplier side, the biggest announcement was the Mark Andy acquisition of Presstek. Although not strictly a European transaction, it did involve the integration of Presstek’s UK-based headquarters and demo center into Mark Andy’s European organization.

Global Graphics, meanwhile, was acquired by Congra Software, the parent of Hybrid Software. Global Graphics is headquartered in Cambridge, UK, and develops platforms for inkjet print systems. Both companies were already co-operating closely, with Guido Van der Schueren the controlling shareholder of Congra and chairman of the board of Hybrid Software. Since May 2014 he has also acted as chairman of Global Graphics.

Sustainability
A key sustainability development in 2018 was the European Union’s adoption of the Circular Economy package, which aims to ‘close the loop’ of product lifecycles through greater recycling and reuse. Although not targeted the label industry directly, there are clear implications for labeled Packaging.

Member states will be required to ensure that, as of 2030, waste suitable for recycling will not be sent to landfill, and that by 2035 the amount of municipal waste disposed of in landfills will be reduced to 10 percent or less of the total amount generated.

The directive includes measures to encourage the development, production, marketing and use of products suitable for multiple use that contain recycled materials, and that are, after having become waste, suitable for re-use and recycling.

An amendment to the Packaging Waste Directive aims to increase packaging waste recycling, including encouraging an increase in the share of reusable packaging placed on the market. By the end of 2025 (and 2030), at least 65 percent (2030: 70 percent) by weight of all packaging waste must be recycled, including 50 percent (2030: 55 percent) of plastic.

For more info about Finat’s Radar report, go to: www.finat.com/pages/finat-radar
KTI & CTC have now

**Joined Forces**

Two great brands available from Quantum Design Inc.

---

**Email**
- info@ktiusa.com
- ctc@quantumdi.com

**Website**
- ktiusa.com
- ctcint.com

**Contact us today or visit our website for more information**

---

**NewfoilMachines Ltd**

---

**NEWFOIL NM 3534 WITH SCREEN UNIT**

**HD UNWIND UNIT**
- Roll 800mm (30”) Ø
- Air Mandrel
- Electric Roll Lift
- Splicing Unit

**NEWFOIL SP330**
- Flatbed U.V Screen
- G.E.W Drying
- Servo Control
- 340mm (13.4”) Wide

**NEWFOIL NM 3534**
- Hot Stamping, Embossing, Die-Cutting
- 18,000 Impressions Per Hour
- All Servo Control
- 340mm (13.4”) Wide

**NEWFOIL REWIND STATION**
- 3 Station Rewind
- Automatic Reel Tension Control
- Sheeting, Slitting & Back Scoring (optional)
- Pneumatic Controlled Lay-On Roller

**DIGITAL CONVERTING AND MUCH MORE**

---

**NewfoilMachines Ltd**

Newfoil Machines Limited, Moorhey Street, Oldham, OL4 1JE, England.

Tel: +44 (0) 161 627 0550
Fax: +44 (0) 161 627 0551
Email: sales@newfoilmachines.co.uk

Available through our worldwide network of agents
www.newfoilmachines.co.uk
REA JET’s high resolution printers offer expert solutions for the tag and label industry. We guarantee legibility and reliability with every mark, from unique 1D and 2D barcodes and data matrix codes to time, date, counter, shift code and database customizations. Our high resolution ink jet print technology is trusted by millions of users worldwide. Ask us about added value from our Customization Suite Software. Call 440-232-0555 or visit reajettagandlabel.com to learn more.
Traditionally, the biennial Labelexpo Europe tradeshow is the place for technology innovations to be unveiled to the world. But as we saw at Labelexpo Americas 2018, that’s not entirely the case anymore.

TLMI president Dan Muenzer hit it home with his comments about the Americas show in September: ‘You can’t wait two years to innovate. Innovation happens between Labelexpos.’

Indeed, that was the case at Labelexpo Americas 2018, an event where 487 exhibitors showed their latest developments across the largest show floor space ever. Early indication was that visitors were not just window shopping, but making deals, and they likely would continue to make capital equipment purchases heading into 2019. A Labelexpo attendee survey found that 53 percent of visitors planned to buy equipment seen on the show floor within the next six to 12 months.

What visitors saw at the trade show was booth after booth of technology developments that are moving the industry toward greater automation, hybrid printing and flexible packaging production.

**Growth of hybrid, automation**
Industry 4.0 technologies are driving the entire label converting supply chain towards greater efficiencies, and that will continue in the coming year.

While digital packaging production continues to grab headlines, the conventional machine manufacturers have upped the ante, building machines that are getting more efficient and smarter.

Michael Lane, CEO of Meyers Printing Company, told L&L: ‘Necessity is the mother of invention. A few years ago, we were looking at digital solutions, and today the flexo manufacturers have really upped their game and engaged with digital. Every one of these press manufacturers that I’ve seen at the show are offering simpler solutions from an operation standpoint.’

Some conventional press manufacturers have embraced digital, either by adding their own digital engines, as Mark Andy and Nilpeter, or partnering with a digital press manufacturer to add a digital unit to their flexo press line. Omet and Durst, and MPS and Domino were examples seen at Labelexpo. Bobst has opted to focus more on automation and IoT integration, which the company told L&L can compete with short run digital jobs.

The further development of hybrid presses and interest from the North American market is likely to continue. Some industry experts predict hybrid label production to grow by 13 to 14 percent in the coming years.

A TLMI members survey found that 22 percent planned to buy a hybrid machine between by 2020. By comparison, 69 percent said they would buy a flexo machine, and another 69 percent said they would buy digital.

**The rise of flexible packaging**
North American label converters are moving into flexible packaging production at a rapid pace. As flexible packaging run lengths decrease, this creates problems for wide web converters who are traditionally manufacturing these packages. That disruption is creating opportunities for label converters, particularly in short run, small size pouch market.

Demographic and lifestyle factors in North America, including shrinking household sizes, rise of dual-income families and the trend of snacking instead of traditional meals, all promote demand for pouches in small, or single-use size packaging. This favors smaller format presses rather than wide web CI flexo and gravure. Those who have already started producing flexible packaging are seeing the benefits of this healthy market.

Compared to other print segments, the North American label market is an incredibly fragmented landscape. The $13.6bn USD market hosts some 2,350 label companies. By comparison, the folding carton market is valued at $12.9bn USD with about 510 companies; and the flexible packaging industry has about 460 players and is worth $26.7bn USD.

Muenzer, the TLMI president, reported that over the past few years the make-up of TLMI members has shifted to represent this market change. Previously, 100 percent of converter member profits were from labels or tags. Today, about 85 percent of revenue is from labels and 15 percent of member revenue is from flexible packaging or folding carton.

**Workforce challenges**
Another yearbook edition and the same challenges plague the
label industry in North America. Though this industry is not alone in struggling to hire and retain employees, it seems we’re short on solutions.

A key talking point for furthering automation is not only increasing efficiencies on press lines, but also the limited human intervention needed. As fewer workers are available to run these presses, the industry is no doubt looking at automation as a bright spot in an otherwise dim job outlook.

Consider the challenges here: 40 percent of North American flexo converters have difficulty filling jobs, and more than half say it’s impacting the ability to meeting client needs.

Further, the workforce is aging. Eighteen percent of press operators are at or approaching retirement age and only 7 percent of the press operator workforce in the US is under 25 years old, according to the US Bureau of Labor Statistics.

More than 50 percent of the global population is under 30 years old, and by the year 2020, 46 percent of the workforce will be made up millennials. The unfortunate truth is that millennials aren’t looking at jobs in manufacturing.

Technology is changing the way companies and employees think and operate, and it’s forcing label and packaging converters to get creative with their recruitment strategies. Culture and workforce development is a topic at nearly every industry event, including Labelexpo, and that looks likely to continue.

Government regulation
Tax cuts that have benefited many US label companies have an uncertain future. Passed in late 2017, and taking effect in January 2018, were permanent tax cuts for corporations, and a temporary reduction on taxes for sole proprietorship businesses, better known as s-corporations or pass through entities. Many label companies fall into the latter category of businesses benefitting from a reduction on business income taxes.

However, mid-term elections loomed in the US at the time this issue went to press, so the future of those tax breaks is uncertain. Expect more articles on the government regulation in future issues of L&L.

The permanent tax breaks awarded to major corporations were more controversial at the time they were passed. What this next Congress will do with that measure remains to be seen. The next Congress could also seek to make permanent the tax benefits afforded to small and medium-sized companies.

Bryan Vickers, TLMI’s government affairs liaison, says: ‘While there’s an appetite to do that, there’s a cost associated, and how they’re going to pay to extend the tax benefits provided remains a challenge. Everything saved in terms of tax cuts has to be offset somewhere else.’

Tariffs on Chinese goods are another uncertainty facing many label industry suppliers and converters. The Trump administration used a broad brush to apply tariffs to products. It’s creating the environment for a trade war with China, and uncertainty in the label industry. Products from China subject to tariffs include leuco dye (used in the manufacture of thermal papers), uncoated testliner and paper and paperboard for used by the graphic arts sector, Vickers said. ‘Unfortunately there’s no indication that the administration is going to back down from that,’ he said.

Growing markets: cannabis legalized in Canada
Experts say the legal marijuana market in North America is growing faster than the dot-com era in the early 2000s, and that shows no signs of slowing after Canada legalized recreational marijuana in October.

Many Canadian label companies were quick to see the packaging benefits of this burgeoning industry. Edmonton-based Jet Label purchased an HP Indigo 8000 digital press to help it expand further into the legal cannabis market.

Label companies located in US states where legalization has already come into effect are also playing in this market. Many offer packaging samples on their websites, such as Label Impressions of southern California or Colorado-based Lightning Labels.

Arcview Market Research has studied the legal marijuana market and its growth opportunities. According to its reports, the legal cannabis market is worth $6.7bn USD in the US, Canada and Mexico. At a 34 percent growth rate the market will reach $22.6bn USD by 2021, according to the Arcview’s most recent ‘State of the legal marijuana markets’ report.

To watch a video of LPC explaining label industry trends, visit http://tinyurl.com/y8g5q2gu

“Eighteen percent of press operators are at or approaching retirement age and only 7 percent of the press operator workforce in the US is under 25 years old”
Passion for printing inks
and innovative solutions for label decoration

Responsible • Unique • Creative • Original

Special RU CO ink systems ensure enhanced performance, stability and colour brilliance in
UV screen printing • UV flexo printing • UV varnishes
Especially for low-migration systems and standard systems.

All system and product benefits:
www.ruco-inks.com

Plate Mounting Tapes for Label Printing.

Scratched cylinders and sleeves lead to an inconsistent surface, thus endangering a secure tape bond.

Compensating Product Design for Demanding Cylinder/Sleeve Surfaces

tesa.com/print
Expect More.
The new Dimension of Labeling.

HUECK FOLIEN is specialist and technology leader for highly sophisticated functional web coatings with perfect visual appearance. Our tailor-made labelstock solutions support the success of your products. For detailed information on our LABELING products, please get in touch with the HUECK FOLIEN Team.

HUECK FOLIEN – Creating Unmistakable Identity. www.hueck-folien.com
REGIONAL ROUND-UP: CHINA

AS GROWTH RATES SETTLE TO A 'NEW NORMAL', THE CHINESE LABEL INDUSTRY IS ADAPTING WITH MOVES TO MORE EFFICIENT FLEXO AND DIGITAL PRODUCTION METHODS. YOLANDA WANG REPORTS

According to the Chinese national bureau of statistics, gross GDP in 2017 exceeded 82 trillion Yuan (US$11.8 trillion), up 6.9 percent year-on-year and above the growth rate of 6.7 percent in 2016. It is estimated that GDP will grow by 6.5 percent in 2018, so this range represents the 'new normal' for the Chinese economy.

This year marks the 40th anniversary of China’s economic reform program. From the updated data provided by National News Publication Bureau, Chinese printing industry output has risen from less than 5 billion Yuan to 1.21 trillion Yuan in 40 years, meaning today’s output is approximately 250 times that of 1979. At the same time the number of printing companies has risen from 12,000 to nearly 100,000 – nine times that of 1979.

In 2017, 7,088 printing companies had their licenses revoked, a year-on-year increase of 31.2 percent, while 4,722 printing companies were newly established, a 40.7 percent increase. The inefficient companies were progressively eliminated and at the same time the market’s vitality was strengthened.

The average output value of the entire Chinese print industry in 2017 was 428,000 Yuan per capita (US$61,000), approximately 73 times of that in 1979 and up to half that of developed countries.

Now the structure of the Chinese printing industry is shifting from a focus mainly on quantity and capacity expansion to the simultaneous development of simplified inventory management and efficiency optimization. Innovation and niche development are key values.

Label industry specifics

According to the latest statistics from the Label Printing sub-association of the Printing and Printing Equipment Industries Association of China (PEIAC), the value of industrial-scale label printing in 2017 reached 43.2 billion Yuan (US$6.2bn), up 10 percent from 2016. This year-on-year growth rate was higher than that in 2016 (9 percent) and in 2015 (8 percent) and was above the global average. The output of PS adhesive materials was 5.8 billion sqm, with a year-on-year growth of 12 percent – also higher than the growth rate of 2016 (9 percent) and 2015 (8 percent).

Most label printing enterprises in China are located in the Yangtze River Delta, Pearl River Delta and Bohai Rim areas, accounting for 47, 26 and 22 percent respectively. Others are spread over central China, the southwest and northwest.

Increasing label demand partly originates from traditional industrial products. Statistics from the China National Light Industry Council (CNLIC) show this sector’s main business income in 2017 was 24.25 trillion Yuan, an increase of 8.5 percent over the previous year, with profit up at 1.6 trillion Yuan. Around 80 percent of light industrial products need packaging and labels, so the development of these products will inevitably push significant growth in label demand.

Thanks to the popularization and development of internet technology, 'internet+' brings new opportunities for the label industry. Data from the State Postal Bureau of China shows that express volume across the country grew from 1 billion parcels in 2010 to 40 billion in 2017. And in the first three quarters of 2018 this figure had already reached 34.74 billion parcels, an increase of 26.8 percent from a year earlier.

According to updated data from the National Bureau of Statistics of China, online sales in China increased 27 percent in the first three quarters of 2018. Online sales of physical commodities rose 27.7 percent, 18.4 percent faster than total retail sales of consumer goods, increasing by 3.5 percent over the same period last year. It is estimated that online sales of physical commodities contributes more than 40 percent to total consumer goods growth.

Logistics labels are growing fast in China’s industrial supply chain, and half are 3-layer adhesive labels. Estimated average growth in the next five years is expected to be over 6.52 percent.

RFID

Today in China there are two types of automated store checkout systems, one adopting machine vision technology and represented by Amazon and Deep Blue Technology, another adopting vending machines with RFID and variable QR codes and using open shelves for snack items like Blibee, Bingo box and Alibaba Tao Café. An IDTechEx survey predicts that the market value for Chinese RFID applications will reach US$4.3 billion in 2025. Today there are more than 150 RFID label manufacturers in China and they produce almost 85 percent of the labels used worldwide.

“The rise of digital printing does not come at the expense of conventional technologies. On the contrary, the integration of the two technologies is becoming a distinct trend”
Chinese-style mobile payment methods such as Alipay and WeChat Pay are accelerating the development of unmanned retail sites in China.

Label printing equipment
Today label printing in China is still dominated by letterpress. However, as environmental protection policies have become more and more restrictive – particularly with the environmental tax levied in 2018 – and demand from end users has increased for short run, personalized and custom-made products, more and more label printing companies are casting their eyes towards flexo and digital printing methods.

From visitor research at Labelexpo Asia 2017, interest in flexo was highest at 43 percent, followed by digital printing at 30.98 percent, offset 28.9 percent, letterpress 24.2 percent and gravure 24.2 percent. There were 54 flexo and digital printing machines displayed at the show.

Data from PEIAC’s Label Printing sub-association shows that 180 flexo presses were installed in 2017 in mainland China, an increase of 8.9 percent from 2016. To date, the total number of flexo press installed in China stands at 2,197 machines. For comparison, in 2017 35 offset presses were installed, a 15.7 percent increase from 2016. The current installed base of offset presses is 258 machines.

At this stage, digital label printing accounts for less than 5 percent of installations in China. Besides the international brands such as HP Indigo, Konica Minolta, Domino, Screen, Xeikon, Epson etc, domestic manufacturers have also launched digital label printing equipment, including Shenzhen Handway, Winbosc, Amica, Shenzhen Haotian, Beijing Founder and Lucky Huaguang.

The rise of digital printing does not come at the expense of conventional technologies. On the contrary, the integration of the two technologies is becoming a distinct trend. For example, Domino and Spande launched together the N610i+ flexo hybrid machine, which will be installed in the Shanghai plant of Hyprint, and Zonten concluded a strategic agreement with Konica Minolta and will launch its new ‘digital + flexo’ label press in the near future.

Environmental protection storms
The label printing industry has been impacted by environmental protection policies introduced in 2018, especially measures to reduce VOCs. Both the packaging printing industry and ink industry were listed as key fields for VOC pollution control and treatment.

Regional governments have already approved VOC emission reduction plans for different industries on a local level, and more than 20 provinces, cities or autonomous regions have started a levy on VOC emissions. Beijing and Shanghai have established the most stringent standards – for example maximum emission concentrations in Beijing cannot be more than 30mg per square meter, and in Shanghai the limit is 1.5kg per hour. In addition, cities such as Shenzhen and Shanghai have introduced online monitoring of pollutant emissions, and as a result a number of small and medium-sized printing companies have been forced to close or relocate to middle or western areas of the country.

Plastic film industry
With small and medium-sized flexible package producers forced to shut down due to gravure VOC emissions, label printers have seized the opportunity to produce flexible packaging products themselves. For example Beijing Deji Label purchased its second Omet Xflex X6 10-color flexo combination press for filmic materials and CymMetrik purchased a Mark Andy Performance Series P9E press. They are all looking at converting shrink sleeve label and flexible packaging products.

After many years of rising volumes, however, filmic growth rates have begun to slow. Filmic growth rates reached their peak in 2013 at over 31 percent, but by 2017 had fallen to just 2.47 percent. This dramatic decline was due to a combination of changing industrial standards and stricter environmental protection policies.

“As environment protection policies have become more and more restrictive and demand from end users for short run, personalized and custom-made products has increased, more label converters are casting their eyes towards flexo and digital”
Flexo operations are tough to keep healthy. Margins rely on everyone and everything performing and delivering according to plan. That's why The ARChitects of Flexo should be part of that plan.

Behind your ARC International representative is a team of flexo-focused gurus. They’re all trained to ensure that everything rolling on your flexo line is engineered to give you healthy profits. From ink consumption, to volumes and densities, to hard lines and soft fades — if it involves moving, coating, or printing a substrate, The ARChitects of Flexo have the evidence-based proof and scientific insight to make your line run true and fruitful.

Why not put your best team on the line? Contact ARC today. Together we’ll draw up a plan to give you a healthy bottom line.

ARCInternational.com
800-526-4569

The ARChitects of Flexo
The Largest Manufacturer in China
for Label Printing & Converting Machines

ZJR-350/450
Flexo Printing Machine

ZX-320/450
Intermittent Label Offset Printing Machine

ZB-320
Automatic Label Inspecting Machine

WQM-320G/420
Adhesive Label (logo) Die-Cutting Machine

ZBS-320/450
Stack Flexo Printing Machine

ZM-320
Rotary/semi-rotary Label Die-cutting Machine

ZHEJIANG WEIGANG MACHINERY CO., LTD.
Southeast Asia is one of the fastest-growing label markets in the world, with a trend towards rising consumption in the booming economies of this heterogeneous region.

The strength of the local market was demonstrated at the inaugural Labelexpo Southeast Asia, held in May in Bangkok. With 7,934 attendees from 62 countries flocking to the three-day show, exhibitor rebookings for the next edition in 2020 stood at 42 percent at the end of the show – the highest following a Labelexpo event launch to date. The event attracted 174 of the global industry’s principal suppliers, who see the region as a booming market.

Suppliers spy opportunity
At the event, Jakob Landberg, Nilpeter’s sales and marketing director, described Thailand as ‘one of the five fastest-growing label markets in the world’. Eric Blankenstein, sales director at Nilpeter Asia-Pacific, said the country is an hub for the company: ‘We have our technology center here and it’s a great market for us to further expand into Southeast Asia.’ Nilpeter opened a new office in Indonesia last year and is looking at Vietnam next.

Omet’s ASEAN manager Dario Urbinati said: ‘Thailand is one of the hot spots in the label and packaging industry in Southeast Asia. The wider ASEAN region has one billion consumers with a double-digit growth rate in labels and packaging, so it is a significant part of our business strategy.’

Indicating technology trends, Sean Pullen, sales director Asia Pacific at Mark Andy, said that local printers are upgrading from letterpress and could go the digital or flexo route – or both. ‘Also it is very much a flexible packaging market in Thailand that includes pouches and sachets.’

Letterpress machine manufacturers such as Zhejiang Weigang and Zhongte see great demand for letterpress and offset technology in this market. Spring Xu, international sales manager at Zhejiang Weigang, said: ‘Similar to China, there are lots of short-run jobs in the Southeast Asian market, and local converters have traditionally used letterpress and offset machines to target this work. But we see a trend of companies moving into flexo technology.’

Brotech’s Ramon Lee said: ‘It is a good market that has a high concentration of digital, flexo and letterpress technologies. The labor cost, however, is increasing, because of which label printers are shifting to more automated machines. We see growth in Singapore, Malaysia and Thailand.’

HP Indigo’s Melvin Lew said: ‘The region is growing well with Thailand being a huge market, and we see growth potential in Indonesia.’ The company has several demonstration centers in Southeast Asia, including two each in Thailand and Indonesia, three in the Philippines, and one each in Singapore and Malaysia.

Armor’s Mark Day said: ‘The Southeast Asian market is very price-sensitive, but we bring additional value to ribbons with the inkanto product range. We are growing with the market and witnessing double digit growth year-on-year in volume consumption.’

Lintec has manufacturing bases in Thailand and Indonesia and sales/slitting centers in Singapore, Malaysia, Vietnam and the Philippines. ‘ASEAN is certainly a growing market for us,’ says Masaaki Yoshitake. ‘We see big growth for Lintec now in the food, toiletries and cosmetics markets.’

Univacco sees Indonesia as the fastest-developing market in Southeast Asia. Univacco is witnessing a 20 to 30 percent growth in the region, compared to the global growth of 15 percent. It has distributors in Vietnam, Indonesia, Thailand and the Philippines as well as an office in Malaysia.

RotoMetrics is expanding its production facility in Thailand owing to the growing market in Southeast Asia. Paul McKay, general manager, said: ‘While Thailand and Singapore are large mature markets, we see potential growth in the Philippines and Indonesia. As volume in these markets will grow, small and medium size label printers will have to switch from flat-bed die-cutting to rotary die-cutting technology. We already see it happening in Indonesia. We see a growth of 20 to 25 percent in rotary dies in the region year-on-year.’

BST eltromat Southeast Asia’s managing director Oliver Finkeldey summed it up: ‘The market here is booming.’

Converter trends
At the event’s conference, a panel discussion of regional converters outlined some of the market’s key trends, such as the need to diversify from pressure-sensitive labels to other forms of labeling and package printing in order to maintain competitiveness.

Indonesia-based PT Interflex, for example, was founded in 2008 to produce shrink sleeves, and has now diversified into flexible packaging. Trisan Printing, based in Thailand, was originally a letterpress label converter and has adopted flexo and offset while also diversifying into folding carton production.

Each country in the region has different demands, so it is a...
challenge to track consumer profiles in each country and market products to them effectively. Multinational companies are moving into the region to cater to increasingly leaner supply chains.

Adrian Pratiwiharja of PT Interflex Sejahtera Perdana said: ‘We have big multi-national converter competitors in Indonesia, and that is a good thing. It is fair competition and makes us want to continuously improve. Certain brands in Indonesia still prefer buying from medium-sized local companies, where we can be more price competitive. They like the quick lead times from a small business.’

Brenton Barrett of Multi-Color Corporation (Asia-Pacific) commented: ‘Despite MCC being an international converting group, its ASEAN customers are looking for the company to be local. It is all about speed to market and being local. We can export to a market for perhaps 1-2 years before we have to put down bricks.’

Asian release liner market

Alexander Watson Associates (AWA) organized an event in Bangkok to discuss the Asian release liner market ahead of Labelexpo Southeast Asia’s debut show in May. Sharing research data, Corey M Reardon, president and CEO at AWA, said: ‘50.9 billion sqm of siliconized release liner was consumed in 2017 globally, of which 19.6 billion sqm – 39 percent – was consumed in Asia-Pacific.’

According to research by AWA, consumption of glassine/SCK paper and polyolefin coated paper in Asia-Pacific stands at 28 and 29 percent respectively. ‘We see a slight shift to glassine in this market but it is slower than expected,’ said Reardon. Global consumption of glassine stands at 36 percent and that of polyolefin coated paper is 17 percent.

Globally, 49 percent of release liner is used for the label segment and 13 percent for the tape segment. Following global trends, the Asian market has also been observed to use 48 percent of release liners for label applications, and 21 percent for the tape segment. In 2017, the global release liner market grew at just under five percent and the primary growth driver was the Asia-Pacific region, growing 6.4 percent. ‘It is, however, not a homogeneous market with different sub-regions growing at different rates,’ Reardon pointed out.

He further added that 62 billion sqm of label material is estimated to have been used worldwide in 2017, of which 44 percent was consumed in Asia-Pacific. Food and beverages have been identified as the fastest-growing segments in the region, with...
“50.9 billion sqm of siliconized release liner was consumed in 2017 globally, of which 19.6 billion sqm – 39 percent – was consumed in Asia-Pacific”

growth of 22 and 47 percent respectively. Pressure-sensitive was seen as the fastest-growing label technology in Asia-Pacific last year, at 6.9 percent, with increasing opportunities in the food and beverage segments. This is followed by growth in shrink sleeves at 5.5 percent and glue-applied at 5.2 percent.

Pressure-sensitive labeling represents 24 percent of the global primary product label market; glue-applied stands at 44 percent followed by shrink sleeves at 23 percent. In the Asian market, however, pressure-sensitive represents a larger share of 35 percent, followed by glue-applied labels at 33 percent and shrink sleeves at 27 percent.

One of the key growth trends in shrink sleeve labeling is the food and beverage segments, where competition with pressure-sensitive labeling is increasing. However, shrink sleeves are now growing at a deaccelerated rate. The other competing technology is flexible packaging, which is growing at a fast pace in the region. Track and trace in logistics and transport is also on the rise and not much competition is seen in this market segment. Shrink sleeves and wet-glue are not competing with pressure-sensitive in the variable information printing category. However, direct print is replacing pressure-sensitive labels in some cases, but it can’t include value-added features such as RFID, security and anti-counterfeiting that have increased demand in the pressure-sensitive segment,” said Reardon.

Subscribe to Label News Southeast Asia e-newsletter at www.labelsandlabeling.com/newsletters

Regional growth was reflected in the successful launch of LabelExpo Southeast Asia 2018

“50.9 billion sqm of siliconized release liner was consumed in 2017 globally, of which 19.6 billion sqm – 39 percent – was consumed in Asia-Pacific”

is flexible packaging, which is growing at a fast pace in the region. Track and trace in logistics and transport is also on the rise and not much competition is seen in this market segment. Shrink sleeves and wet-glue are not competing with pressure-sensitive in the variable information printing category. However, direct print is replacing pressure-sensitive labels in some cases, but it can’t include value-added features such as RFID, security and anti-counterfeiting that have increased demand in the pressure-sensitive segment,” said Reardon.

Subscribe to Label News Southeast Asia e-newsletter at www.labelsandlabeling.com/newsletters

Regional growth was reflected in the successful launch of LabelExpo Southeast Asia 2018
GVM engraving machines, for CNC sharpened flexible dies features the rotary and flatbed cutting demands by fulfilling the highest requirements.

DieJet, the DTP direct to plate solution for technological printing demands considers state of the art production needs for precision and efficiency.

Made in Germany – manufactured with excellent care.

Please take a look at our videos:
Google+: goo.gl/DC1Sbw | YouTube: goo.gl/Wf6zI7

ANDERSON EUROPE GMBH
Am Obere Feld 5 | D-32758 Detmold/Germany

Phone +49 5231 9663-0 | Fax +49 5231 9663-11 | sales@andersoneurope.com

Anderson Group
Anderson Europe GmbH

www.andersoneurope.com
REGIONAL ROUND-UP: INDIA

PROFESSIONALIZATION, EFFICIENCY AND QUALITY: THE INDIAN LABEL INDUSTRY IS COMING OF AGE, WRITES AAKRITI AGARWAL

India is a growing market with rising disposable income amongst the highly populous middle class. The National Council of Applied Economic Research (NCAER) states that by 2025-26 the middle-class population in the country is estimated to reach 547 million people.

According to India Brand Equity Foundation (IBEF), India’s per capita GDP is expected to reach US$3,273 in 2023, up from US$1,983 in 2012. The main consumer spending rises are likely to occur in food, housing, consumer goods, transport and communication sectors.

IBEF also states that India’s GDP growth is estimated to have reached 6.6 percent in 2017-18 and is expected to grow to 7.3 percent in 2018-19. In April-July quarter of 2018, GDP grew by 8.2 percent.

According to Quora, the Indian retail industry accounts for over 10 percent of the country’s GDP and around 8 percent of employment. It is expected to grow to US$1.3 trillion by 2020, registering a CAGR of 9.7 percent between 2000 and 2020.

All these research reports indicate the strong growth of the Indian economy, which is stimulating similarly rapid growth of the country’s label industry.

Labelexpo shows higher-specification presses

Label presses being installed by local converters are increasingly sophisticated: often customized machines with value-adding features such as cold and hot foiling, embossing, Fresnel lens, anti-counterfeiting features and so on.

This trend was clear at the recent Labelexpo India 2018 show, with numerous sales announced by not only European and American machine manufacturers but also the Indian suppliers. The growing label industry is paving the way for new entrants such as NBG, SnM Enterprises, UV Graphic Technologies and Hyden Packaging, amongst others, which showed presses for the first time at the exhibition.

Not only did they exhibit – they were also selling machines. SnM Enterprises sold two presses; UV Graphic sealed a deal and Hyden Packaging sold a slitter rewinder with Futec inspection camera on the last day of the show.

Multitec, an established Indian machine manufacturer, announced two press sales and finalized a deal with Domino to produce India’s first hybrid press – a clear indication of the rising sophistication of technology in the local market.

Other international suppliers such as Lombardi, Nilpeter and Omet, Indian companies Alliance Printech, PGI Technologies, Webtech Engineering, RK Label Printing Machinery, Arrow Digital and Moksha Engineering, and Chinese companies Zonten, Wanjie and Weigang all sold presses from the show floor at the event.

Ajay Mehta, managing director at SMI Coated Products, says: ‘Printers are opting for combination presses and are looking at digital technology as well. The industry is becoming very innovative and looking at sustainable solutions.’

The Indian label industry is increasingly investing in digital and UV inkjet technologies. Labelexpo India saw machinery running from several digital suppliers, including Monotech Systems, HP Indigo, Domino, Xeikon, Konica Minolta and others.

Monotech launched its Colorono UV inkjet press at the show and announced five sales in four days. This is a huge step forward for the Indian label industry, where until just a few years ago local printers were shying away from digital investments.

Most printers are also investing in inspection equipment that was not commonly seen in label factories until recently. Stricter regulations by the government, especially in the pharmaceutical industry, and demand for defect-free and high-quality labels by brand owners has resulted in a surge in installations of sophisticated inspection systems.

Hemant Desai, director of operations, India, at Baldwin Vision Technology, says: ‘The label and packaging industry in India is growing at double-digit rates. There is a demand for print quality management, consistency and waste management. The Indian industry is at a stage of transition and customers are in the process of embracing new technologies and making new investments.’

“Strong growth in the Indian economy and a rising middle class are stimulating similarly rapid growth in the country’s label industry”

Rising middle class

Ajay Mehta attributes local label industry growth to the rising middle class. ‘Our per capita consumption stands at about 0.35sqm. The Indian label industry is growing at a rate of about 15 percent per annum,’ he says. ‘There will be a period soon when the surge will be higher than 15 percent, and that’s what everyone is looking at. It’s not about catching up with Europe, America and China in terms of consumption. I anticipate to reach 3sqm or 4sqm in the next five to seven years, which is ten times the current consumption. The industry is poised to grow ten times in a short span of time.’
‘Therefore, companies are moving towards more sophisticated machinery. Newer machines are capable of doing registration within 10 minutes, reducing wastage, and have shorter web paths. Pressure-sensitive labels are becoming more cost-effective. The Indian converter is also opening to investing in digital presses. We see growth being driven by end consumers and printers together.’

Ashish Chitale, partner at Mumbai-based label printer Coats & Pack, says: ‘Volume has increased but the price has always been an issue. We have started doing variable data printing also. Any value addition on labels gets a decent price and margin. As a result, we are now offering track and trace solutions, as well as redemption labels,’

Pankaj Bhardwaj, senior director and general manager South Asia for Avery Dennison, says: ‘The label industry in India has a strong correlation with GDP. PS penetration has improved, and more brands are moving to PS from other decoration technologies, although challenges remain in terms of costs. The segments that are growing include home care, e-commerce and general manufacturing, all sectors which reflect GDP growth.’

‘There are elements of industry 4.0 being adopted in the Indian label industry. We see changes towards productivity and efficiency. Therefore, there are more advanced machines are coming in with features to enable value-added decoration on labels. There is a play for digital as well. Compliance is increasing in India too which has led to the need for higher automation so we see more inspection and sophisticated equipment coming in,’ says Bhardwaj of the trends seen in the Indian market.

Sustainability is becoming key, with Avery Dennison launching a glassine liner waste recycling program in Australia, India and Thailand. ‘We already have several major brand owners engaged, and are trialing this service with Unilever, the first company to officially begin recycling its waste liner through our program. We see great potential and a growing demand in India, which is driven by emerging government legislation and higher global sustainability targets being established by multinational brands,’ says Darren Milligan, senior marketing director, Label and Graphic Materials Group, South Asia Pacific and Sub-Saharan Africa at Avery Dennison. The company is also collaborating with The Himalaya Drug company for a similar project in India.

The label industry, therefore, is growing in tandem with the increasing quality demands of brand owners. Earlier this year at a conference, Barun Banerjee, head of packaging at Nestle South Asia, spoke about the need for sustainable and recyclable labels, green initiatives, new technology, as well as digital print and personalization, and the need of protecting products using anti-counterfeiting features on labels.

Rahul Bhargava, vice president, packaging at Sun Pharma, said that more than 70 percent of recalls in the pharmaceutical industry globally occur due to defective labels, thus, stressing on the need of more inspection and automation. Reaction to these trends and requirements, it seems, is now beginning in earnest.

Brand owners, printers and suppliers had an opportunity for a meaningful discussion at Labelexpo India at the inaugural Brand Innovation Day. All parties engaged in discussing ways to take the Indian label industry forward and tap the growth potential.

For more on the Indian label industry, subscribe to Label News India e-newsletter at www.labelsandlabeling.com/newsletters
These are just a few of the products we provide Label Stock Solutions for

SMI Coated Products Private Limited, largest Indian Label Stock manufacturer, provides Label Stock Solutions for various applications across a wide range of products including, Pharmaceuticals, Cosmetics, Consumer Goods, Lubricants, Tyres, etc.

With a strong customer-partnership orientation, SMI has always maintained a proactive flexibility in offering solutions for existing & emerging packaging challenges through their label stocks.

Download the SMI Product Selector App or scan the QR Code with your Apple or Android Device to download the app.

Your Label Application, Our Label Stock Solutions.

Economics of profitability
Range of machines & tooling

ROBUST PRECISION
HIGH SPEED
GLOBAL QUALITY

Die cutting + Rotary Slitting + Turret rewinder

Servo slitting machine with 100% inspection

World class precision tooling for narrow web

sales@pgitech.in
W-68(A), MIDC Industrial Area, Chikalthana, Aurangabad-431006
Maharashtra, India. Tel. 91 240-2486066
www.pgitech.in
Transform your Labels and Packaging Business

Be more productive and profitable

More JETSCI Products
VSRI | HYBRID INKJET IMPRINTING | TRACK & TRACE | DIGITAL LABEL FINISHING

www.jetsciglobal.com | www.monotech.in
Email: jetsciglobal@monotech.in

www.linkedin.com/company/monotech-systems/
twitter.com/monotechsystems
www.facebook.com/monotechsystems
According to the World Bank, 2017 saw a modest recovery to 2.6 percent growth in sub-Saharan Africa (up from 1.3 percent in 2016). Though political and economic woes continue to grip African nations, major milestones are being achieved, signifying a new era for citizens across the continent.

It’s clear that the stubborn relics of Africa’s post-colonial struggles are finally crumbling – in ways that clichéd narratives and labels such as ‘Africa Rising’ or ‘emerging markets’ could never quite capture. Unlike the past, where foreign intervention was common, Africa is now liberating itself – the African way.

One example is Kenya’s ground-breaking presidential election, which saw Raila Odinga, the main opposition leader, successfully challenging the fairness of the election process. Then there was the end of Robert Mugabe’s disastrous 37-year reign in Zimbabwe, and Angola’s transition from the entrenched Dos Santos family.

One result of these tumultuous times is that many Africans no longer want products and services that perpetuated the spirit of their colonial forefathers. Instead, they’re aspiring to a new African standard that sets superior benchmarks and positively brands Africa on the global stage. At the same time, jaded consumers in the West are now looking towards previously ignored markets, such as Africa, for quirky innovations, fresh inspiration and novel inventions.

Says Bompas & Parr’s Imminent Future of Food (December 2017): ‘Africa is the next logical flashpoint for inspiration. It’s arguably the main remaining world food culture left to be adopted, adapted and commercialized.’

So whether launching products for the domestic market or making waves in the international arena, African magic will fight against global mundanity, competing with and beating established Western incumbents at their own game.

Also set to offer exciting opportunities for Africa is the impact of Industry 4.0. This next phase in the digitalization of the manufacturing sector will be wide and profound. It offers opportunities for African manufacturers – particularly small and medium enterprises – to create new business models and integrate into global value chains. However, benefiting from Industry 4.0 means overcoming a myriad obstacles. Given Africa’s particular context, policymakers must ask the right questions to ensure the continent can capitalize on the revolution.

 Earlier this year, the Brookings Africa Growth Initiative and UNIDO (United Nations Industrial Development Organization) explored strategies to anticipate and circumvent the challenges generated by Industry 4.0 and ways in which Africa can benefit.

The meeting particularly emphasized that policies for capitalizing on Industry 4.0 must be able to reconcile the tension between Africa’s current low state of industrial development and poor infrastructure with the high requirements of a digitalized economy.

Packaging trends in South Africa
Politics and industrial revolutions aside, according to Euromonitor’s latest research, South Africa’s challenging economic conditions are a key determinant in the development of packaging trends, as manufacturers seek to keep costs down and consumers pay closer attention to the management of household budgets.

While keeping prices down remains a key factor in packaging in South Africa’s food industry, changing consumer attitudes and lifestyles are exerting a growing influence on packaging developments. Most prominent among these are the demand for more convenient packaging options compatible with the increased pace and on-the-go character of modern urban lifestyles and the growing popularity of packaging that appeals to rising health-consciousness.

The non-alcoholic drinks market is seeing a notable trend towards smaller packaging driven by economic factors, including a decline in consumer purchasing power and the introduction of the sugar tax. Even before the tax came into effect, it was already exerting a significant influence on packaging development, as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

While keeping prices down remains a key factor in packaging development, South Africa’s food industry is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of the sugar tax. Even before the tax came into effect, it was already exerting a significant influence on packaging development, as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.

Beauty and personal care manufacturers are also finding different answers to the impact of challenging economic conditions and declining purchasing power. In some categories, particularly essential or everyday items, bulk packaging is becoming popular as soft drinks manufacturers shifted to smaller packs in anticipation.

Overall, the drinks market is also seeing packaging trends that reflect a demand for value-for-money among budget-conscious consumers – for instance, larger pack sizes, such as one-liter returnable glass beer bottles, 500ml metal beer cans, and one-liter liquid cartons for juice.
L9 announces

WORLD LABEL AWARDS

CATEGORY WINNERS

This year we saw a whole new group of companies who have impressed the international panel of judges with some really exciting, high quality entries. We are delighted to be able to present the labels which received Category and Honourable Mention awards in the 2017 L9 World Label Awards (WLA) competition.

Getting the judging right in a label competition of this importance is often down to looking at the very fine detail which even the strictest quality control technician might dismiss as insignificant. All entries have passed the first test, which means that they are commercially acceptable, then they pass the second ‘filter’ by being selected as winners in their associations’ annual competitions. Then comes the moment of truth when the representative judging panel examines each entry in great detail, looking for as many positive attributes and taking marks off for obvious technical issues.

The result is a fantastic selection of the best labels submitted from each of the associations. The competition is hotly contested and the winning companies can justifiably be proud of their awards. The final job for the judges is to select the Best of the Best labels in five categories: digital, flexo, offset litho, combination and letterpress printing. These awards were presented at the Label Industry Global Awards evening during Labelexpo Americas 2018.

More details of how the World Label Awards work can be found at www.worldlabelawardsassociation.com.

WINNERS

CLASS #1

**SALMA**

**FLEXO LINE**

Rapid Labels, New Zealand, for ‘NZ Sunscreen Pure Shade’

Printed on a Gallus EM250 in three colors on an Avery Dennison silver foil at 40m/min. A rotary screen luster coating added to the final effect.

CLASS #2

**TLM**

**FLEXO LINE/SCREEN**

Label Impressions, USA, for ‘Deva Curl Buildup Buster’

Printed on a Nilpeter press in four colors on an Avery Dennison silver foil substrate using Siegwerk inks.

CLASS #3

**FPLMA**

**FLEXO COLOR PROCESS**

Label Force, Australia, for ‘John West Calamari’

Printed on a Mark Andy P5 press in six colors plus lamination at 65m/min using a 150 LPI screen with Paragon inks on 150gsm board.

CLASS #4

**JFLP**

**FLEXO WINE/SPIRITS**

Takara Pac, Japan, for ‘Chablis Wine Label’

Printed on an MPS EC330 in five colors front two colors back plus lamination on a Fujiclear 38 film and PP matte substrates.
**CLASS #6**

**JFLP**

**LETTERPRESS LINE/SCREEN**

Maru-Sin, Japan, for “Safety Drive”

Printed on an Onda OPM W250 3S press in two colors using DIC and Toka inks on a PP film substrate.

---

**CLASS #7**

**JFLP**

**LETTERPRESS COLOR PROCESS**

Sato Printing, Japan, for “Daimyo Futomaki (Sushi Roll)”

Printed on a Sanjyo P20 rotary press in five colors using Toka UV inks on a Lintec Gloss PW 8R substrate.

---

**CLASS #8**

**JFLP**

**WINE/SPIRITS**

Sato Printing, Japan, for “Apple and Lime Liqueur ‘Ringo Hime’”

Printed on a Sanki SMP 330 press in four colors using FD Carlton X inks on a Lintec gloss SG 8K substrate.

---

**CLASS #9**

**SALMA**

**OFFSET LINE**

Panprint, New Zealand, for “True Honey Co. 300+ MGO”

Printed on an Omet X6 offset/combination press in one color plus flexo varnish and hot foil and a screen Hi Build on a Vintage PE substrate at 40m/min.

---

**CLASS #11**

**PEIAC**

**OFFSET COLOR PROCESS**

Beijing Yazhengyuan Colourful Printing, China, for “JOMO Label”

Printed on a Gobo 105UV 6+1 offset press in six colors and a 200 LPI screen.

---

**JFLP**

**OFFSET COLOR PROCESS**

Shinwa Label Printing, Japan, for “Yamagata Sakuranbo”

Printed on a Sanki SOF330 press in four colors and cold foiling using UV Toka inks on a Marusao Chemical Pearl BP YN 8S substrate.
### Class #12

**JFLP**  
**Offset Wine/Spirits**

Seiido Printing, Japan, for ‘Japanese Sake “Yamahoushi”’
Printed on a Sanjo P 03 270 5CFP FR press in six colors plus debossing using Toka 171 waterless inks on a Lintec PETS Bright 50 substrate.

---

**SALMA**  
**Offset Wine/Spirits**

Panprint, New Zealand, for ‘Pacific Potion Sauvignon Blanc’
Printed on an Ormet X6 offset/ flexo combination press in one color plus hot foil on a Vintage PE–Z 3338 BC40 substrate at 40m/min.

---

### Class #13

**SALMA**  
**Combination Line**

Rapid Labels, New Zealand, for ‘Floating Foil Snapper’
Printed on a Gallus EM280 press in one color plus a floating foil on a soft-feel varnish on a Kantac substrate at 30m/min.

---

### Class #15

**JFLP**  
**Combination Color Process**

Sunmec, Japan, for ‘Denen Fuka Box Label’
Printed on a Sanki SMP250 press and an Iwasaki 3HD 250 press in seven colors plus gold foil and embossing.

---

### Class #16

**TLMI**  
**Combination Wine/Spirits**

Multi-Color Corporation, USA, for ‘Octopoda Cabernet Wine’
Printed on an HP Indigo press in two colors using HP Indigo inks plus hot foil, embossing on a Wausau coated substrate.

---

### Class #17

**TLMI**  
**Digital Printing**

Digital Label Solutions, USA, for ‘KIA –The Extra Mile’
Printed on a HP Indigo press in four colors plus lamination using HP inks on a Wausau Coated substrate.
### Class #18
**TLMI**  
**Digital Wine/Spirits**  
Syracuse Label & Surround Printing, USA, for ‘Ryze Vodka’  
Printed both sides on a HP Indigo press in four colors using HP inks on a Fasson silver foil substrate.

### Class #19
**LM AI**  
**Screen Printing**  
Any Graphics, India, for ‘ComAD Designs’  
Printed using a flatbed press in four passes in two colors plus a glitter varnish.

### Class #20
**SALMA**  
**Gravure Printing**  
Gravure Packaging, New Zealand, for ‘Chobani 170g’  
Printed on a Pelican Rotoflex press in six colors on a film base at 50m/min.

### Class #21
**FINAT**  
**Booklets**  
Stratus Packaging, France, for ‘Multipages les recettes Végétales sans gluten’  
Printed on a HP Indigo W56800 press in four colors using HP inks on a Fasson film substrate.

### Class #22
**FINAT**  
**Innovation**  
Source Labels, UK, for ‘Fortnum and Mason Beluga 000 Fresh Caviar’  
Printed on a HP 330 press using HP inks in four colors plus special Swarovski crystal lamination on a Raflatac film substrate at 50m/min.

**LM AI**  
**Innovation**  
Mudrika Labels, India, for ‘Colgate Deep Cleaning’
HONORABLE MENTIONS

CLASS #3
SALMA
FLEXO COLOR PROCESS
Admark Visual Imaging, New Zealand, for ‘Moana’

CLASS #4
SALMA
FLEXO WINE/SPIRITS
Rapid Labels, New Zealand, for ‘Craggy Range Wild Rock Pinot Gris 2016’

CLASS #4
FINAT
FLEXO WINE/SPIRITS
Royston Labels, UK, for ‘King’s Cross’

CLASS #5
FINAT
LETTERPRESS LINE
Cabas, Greece, for ‘Agro.VI.M. Olive Oil Kalamata PDO 1L’

CLASS #7
SALMA
LETTERPRESS COLOR PROCESS
Leading Label, New Zealand, for ‘Pumpkin Seed Oil’

CLASS #12
FPLMA
OFFSET WINE/SPIRITS
Multi-Color Australia for ‘D’SAS’

CLASS #13
FPLMA
COMBINATION LINE
Label House, Australia, for ‘Pale Ale Birra Zonzo’

CLASS #16
JFLP
COMBINATION WINE/SPIRITS
Maru-Sin, Japan, for ‘NEI (Japanese Shochu)’

CLASS #17
FINAT
DIGITAL PRINTING
Çiftsan Etiket Ambalaj San Ve Ticaret, Turkey, for ‘Winx Body Lotion 75ml’

CLASS #18
FINAT
DIGITAL WINE/SPIRITS
Marzek Etiketten, Austria, for ‘Heathland Whisky’

CLASS #18
FPLMA
DIGITAL WINE/SPIRITS
Multi-Color Australia for ‘Silken Beastie Shiraz’

CLASS #19
JFLP
SCREEN PRINTING
Sibel Industry, Japan, for ‘Vronique & Claudette’

CLASS #19
FINAT
SCREEN PRINTING
Stratus Packaging, France, for ‘Shampoo Color Lômé Paris’

CLASS #20
FINAT
GRAVURE
Multi-Color Wales, UK, for ‘Heineken Green Identity’
SIHL FACESTOCK COATINGS FOR SYNTHETICS

For product labelling, SiHL FACESTOCK delivers outstanding results on a wide variety of printers, with high resolution, brilliant colours and smudge-proof prints. For harsh environments such as Logistics, Oil & Chemical Drums, or Durables.

SiHL FACESTOCK have the right product for your print technology

> Aqueous inkjet
> Solvent/latex inkjet
> Dry toner laser
> Thermal transfer

SiHL FACESTOCK coatings are available in matt, satin or glossy finish on BOPP, BOPET, PE/PP blend E1 AL.

Ask for our XM1 for aqueous inkjet approved with 5 stars* according to BS5609 section 3!

* Epson C3500, Epson C831, Epson 7500G, Kyaro D, Primera Lx2000e

www.sihl.com
www.sihl-facestock.com

YOUR PARTNER IN PRINT TECHNOLOGY...

UV INKJET PRESSES
- Epson C3500
- Epson C831
- Epson 7500G
- Kyaro D
- Primera Lx2000e

PRE-PRESS SOLUTIONS
- StarPlate
- HD Films
- Pre-Ink Plates
- Pre-Press Plates
- Pre-Press Solutions
- Colour Management Systems
- DX5 Print Systems

WATER WASH PLATES
- Waterwash Film
- Non-waterwash Film
- Rapid Plate Making
- Rapid Exposure Systems
- Rapid Plate Preparation
- Rapid Plate Mounting Systems
- Rapid Printing Equipment

PROCESSING SYSTEMS
- StarPlate
- HD Films
- Pre-Ink Plates
- Pre-Press Plates
- Pre-Press Solutions
- Colour Management Systems
- DX5 Print Systems

ON PRESS PRODUCTS
- StarPlate
- HD Films
- Pre-Ink Plates
- Pre-Press Plates
- Pre-Press Solutions
- Colour Management Systems
- DX5 Print Systems

PLATE CLEANING
- StarPlate
- HD Films
- Pre-Ink Plates
- Pre-Press Plates
- Pre-Press Solutions
- Colour Management Systems
- DX5 Print Systems

www.dantex.com
GET READY FOR THE FUTURE

THE MOST EFFICIENT RFID SMART LABEL & SMART CARD PRODUCTION SOLUTION

Mühlbauer is the world’s market leader in innovative systems and software solutions for the production of RFID smart labels, smart cards and ePassports. The German high tech specialist offers the perfectly matching equipment solutions ranging from RFID antenna production, inlay assembly to the converting and personalization of smart labels, tickets and tags.

Mühlbauer – Your Partner for Future Technologies!

VISIT US AT
Labelexpo Europe 2019
24-27 September 2019
Brussels Expo
Booth 6D55

www.muhlbauder.com
This is the sixth year that the L9 World Label Awards judges have selected five additional awards representing the ‘Best of the Best’ entries from the principal printing technologies used in the label industry: flexo, letterpress, offset litho, combination and digital. The awards were presented at the Label Industry Global Awards held during Labelexpo Americas 2018.

WINNERS

**JFLP**
**FLEXOGRAPHIC PRINTING**

![Chablis](image)
Chablis
Takara Pac, Japan

**SALMA**
**COMBINATION PRINTING**

![Floating Foil Snapper](image)
Floating Foil Snapper
Rapid Labels, New Zealand

**JFLP**
**LETTERPRESS PRINTING**

![Yamagata Sakuranbo](image)
Yamagata Sakuranbo
Shinwa Label Printing, Japan

**TLMI**
**DIGITAL PRINTING**

![Ryze Vodka](image)
Ryze Vodka
Syracuse Label & Surround Printing, USA

**JFLP**
**OFFSET LITHO PRINTING**

![Daimyo Futomaki (Sushi Roll)](image)
Daimyo Futomaki (Sushi Roll)
Sato Printing, Japan
Ever since 1963 Spilker has developed and manufactured tools for die cutting, printing and embossing, always flexible and innovative.
Global label associations

Association Members of the L9

Latin America
1. ABIEA
2. AMETIQ
3. TLMI

Asia
4. LMAI
5. PEIAC
6. FLPMA

Europe
7. FINAT

North America
8. SALMA

Global label associations | 59
Industry suppliers by category

3D technologies: imaging, prototyping and printing
Afinia
Athena Graphics
AV Flexologic
CGS Publishing Technologies International, LLC
CHILI Publish
DALIM SOFTWARE GmbH
Dilli
DPL Industri A/S
DPS Innovations LLC
El Empaque+Conversion
Four Pees
Hybird Software
Hybird Soft
Jackys Business Solutions LLC
Lucky Huaguang Graphics Co Ltd
Mimaki Europe BV
Mutoh Belgium n.v.
Nakata USA
One Box Vision
uv-technik meyer gmbh

Active and intelligent packaging
Avery Dennison, Fastener & Labeling Systems
Collano Adhesives AG
Complete Inspection Systems Inc.
El Empaque+Conversion
Gemini TRAZE RFID Pvt Ltd
Graphi Mecc srl
Grillstone Electronics Technology (HK) Ltd
Kwang Dah Enterprises Co Ltd
Lana Papiers Spéciaux II
One Box Vision
Pap Argus
Paxar Emea HQ
PolyC GmbH & Co. KG
Sev Access (Far East) Ltd
Shandong Taibao Anti-Counterfeiting Technology Products Co., Ltd
Shanghai Jiaot Hot Melt Adhesive
Shanghai Jinda Plastic Co., Ltd.
Shenzhen Moma Technology Co., Ltd.
Sojitz Europe Plc
Solutia Singapore Pte Ltd
Spandex Group
Speciality Tapes LLC
Spring Coating Systems
Squid Inks AG (Ltd.)
Strata-Tac
Taiwan Regional Association of Adhesive Tape Manufacturers
Tech-Melt Adhesives Ltd.
Teka Corporation
tessa
Tex Year Industries Inc.
Toyo Ink Artes NV
uv-technik meyer gmbh
Uvitec Printing Ink, Inc.
V. Himark Technology Co Ltd
Valco Melton UK
VanDerEng BV
VFP GmbH & Co. KG
Wacker Chemie AG
Weifang Donghang Graphic Technology Inc.
Wenzhou Ouhua Stationery Co Ltd
Worten Coated Fabrics
Zeller+Gmelin Corp.
Zhejiang Hexiang Printing Technology co.,Ltd
Zhongshan Shuguan Self-Adhesive Products Co., Ltd

Air-water treatment systems
Albright & Wller Company
AVflexologic
Collano Adhesives AG
Complete Inspection Systems Inc.
El Empaque+Conversion
Gemini TRAZE RFID Pvt Ltd
Graphi Mecc srl
Grillstone Electronics Technology (HK) Ltd
Kwang Dah Enterprises Co Ltd
Lana Papiers Spéciaux II
One Box Vision
Pap Argus
Paxar Emea HQ
PolyC GmbH & Co. KG
Sev Access (Far East) Ltd
Shandong Taibao Anti-Counterfeiting Technology Products Co., Ltd
Shanghai Jiaot Hot Melt Adhesive
Shanghai Jinda Plastic Co., Ltd.
Shenzhen Moma Technology Co., Ltd.
Sojitz Europe Plc
Solutia Singapore Pte Ltd
Spandex Group
Speciality Tapes LLC
Spring Coating Systems
Squid Inks AG (Ltd.)
Strata-Tac
Taiwan Regional Association of Adhesive Tape Manufacturers
Tech-Melt Adhesives Ltd.
Teka Corporation
tessa
Tex Year Industries Inc.
Toyo Ink Artes NV
uv-technik meyer gmbh
Uvitec Printing Ink, Inc.
V. Himark Technology Co Ltd
Valco Melton UK
VanDerEng BV
VFP GmbH & Co. KG
Wacker Chemie AG
Weifang Donghang Graphic Technology Inc.
Wenzhou Ouhua Stationery Co Ltd
Worten Coated Fabrics
Zeller+Gmelin Corp.
Zhejiang Hexiang Printing Technology co.,Ltd
Zhongshan Shuguan Self-Adhesive Products Co., Ltd

Adhesives
Maan Engineering BV
3M
ACTEGA.
Adesivos e Papéis Especiais RR Ltda.
Adhesive Technical Services Ltd
Advanced Polymers
Air Products Polymers, L.P.
AM-PG Group
Astromon Technologies Inc
API Foils
Arets de Mexico
artimelt
Ashland
ATP Adhesive Systems AG
Avatak Co Ltd
Avery Dennison
Bar Graphic Machinery Ltd
Basic Adhesives, Inc.
BeawardAdams, Inc.
Beijing Zodong Automatic Technology co., Ltd.
Beila Kagit
Best Label Enterprise Co Ltd
Bluestar Siliconas
Bostik
Brady
Braga Comercio Industria Ltda.
Brother Tape Technology Co Ltd
CCT (Coating and Converting Technologies)
CMC Klebetechnik GmbH
Collano Adhesives AG
Cork Industries
Cromatics & Units S.A.
Crown Van Gelder B.V.
Cytec
D & & Coating Technologies, Inc.
DPS Innovations LLC
Dynamite Printing Machine Co Ltd
Datum Colour Print (Hartfield) Ltd
Dow Corning
Drytac
Dyna-Tech Adhesives, Inc.
Dynaloy, Inc
ECO Industry USA
ECOSYNTHETIX
Edison International
Edward Graphic
Emax Label Solutions
EPS Materials
Etiquettes Brasil Ltda
Etiquettes Plus
Eukalin Spezial Klebstoff Fabrik GmbH
Expert Stephan Heuser GmbH & Co. KG
Fangda Packaging Co., Ltd.
(Hebei,China)
Finjetchemical Industries Ltda
Flint Group
Fluid Ink Technology, Inc.
Folex AG
Forbo Bonding Systems
Franklin Adhesives & Polymers
Frinempeks A.S.
Fujifilm UK Ltd
Fuller, H.B. Company
Golden Hontec Laser (Donnguan Hontec Machinery)
GROUP ZMB
GSB-Wahl GmbH
H.B. Fuller Europe GmbH
Haltech Inc.
Henkel
Huadi Machinery Co.,Ltd
Hurikimsa Kimya San.
Icap-Sira Chemicals And Polymers Spa
Ichemco s.r.l.
IdeoOn LLC
Innovative Adhesives
Interflex Laser Engravers
International Surface Technologies
INX International Ink Co.
ITW Dynatec
Japan Pulp & Paper GmbH
Jiaxing Haoneng Packing Co. Ltd
K Laser Technology (USA) Co., Ltd.
KCC Corporation
Korea Branch of Bluestar
Silicones HK Trading Co., Ltd
Kyoto International Corporation
Lombardi Converting Machinery Sr
Mactac
MAX International Converters Inc
Metagalaxy Industries Co., Ltd.
Minus Nine Technologies
Mirage Inks Ltd
MoistTech Corp.
Momentum Performance
Materials
Nakata USA
Naftrostik di Cassano SpA
Natural Ink
Neptune Tape Co., Ltd.
Nicoat
Nordson (UK) Ltd
Novamelt
Novamelt China
Nukote International, Inc.
Omnova Solutions Inc.
Packaging Pro
Paragon Inks Ltd
Polyonics
Precision Die Systems Corp.
Premier Coating & Converters
Prime UV Systems, Inc.
PrintTech Machinery Trading Canada
Printgraph SpA
Printurn UV
Pulse Roll Label Products Ltd
Rohm and Haas
Rotolinfico Pugliesi Srl
Rowat Inks BV
Royal Adhesives and Sealants
Saatiph P.S.P.
Saiden Technologies
SATO
Seal King
Shandong Taibao Anti-
Anilox rolls
Access Printing Solution
Agfa Graphics
Alphasonics
Anilox Laser Technology LTD - ALT
Apex International
Applied Laser Engineering Ltd.
ARC International
BAT Graphic Arts
Benton Graphics Inc.
Beta Industries - The Quality Control Company
BSB Rollers Ltd
C.T. Graphic Arts
Cheshire Anilox Technology Ltd
Conversource Inc.
ConverTech Equipment Pvt Ltd
CTS Industries
Daetwyler SwissTec AG (Print)
Dantex
DELTAPAK B.V.
Dynamo, Inc.
Edward Graphic
El Emrape+C losion
Esterlan International Ltd
Eurograv Limited
FCT Corporation
Flexo Steel Industrial Ltda.
FLXON
Fuji Shoko Co. Ltd.
Harper Corporation of America
Harper Graphics GmbH
Harris & Bruno International
INOMETA GmbH
Interflex Laser Engravers
Lasersafe Australia
Mark Andy
Max Daetwyler Corporation
Mona Equipments
Pamarcos Global Graphics
Polygraphica Equipment Ltd
Praxair
PrimeBlade Sweden AB
Print Systems
Printco Industries, LLC
Printtech Tools & Technology
Provident
Quality Discount Print Parts & Equipment
Raddoba
RBCOR, LLC
Recyl SAS
Rossini
Rotary Technology (Guangzhou) Co Ltd
Rotometal
RotoTechnix
Sanden Global
Sibress
Simec Group S.r.l.
Sveden AB
Tech Stiles
Tech-Cell Ltd
TKM Meyer GmbH
TLS Anilox GmbH
Tower Products Inc.
Troika Systems Ltd
Ungricht
UV Graphic Technologies Pvt. Ltd.
(formerly GTI)
Weldon Celloplast Limited
Zecher GmbH
Anilox rolls-press cleaning systems
Access Printing Solution
Agfa Graphics
Alphasonics
Anilox Laser Technology LTD - ALT
Apex International
Archiem S.R.L
BAT Graphic Arts
Beta Industries - The Quality Control Company
BioBlast
Bradley Systems
Cheshire Anilox Technology Ltd
Conversource Inc.
ConverTech Equipment Pvt Ltd
CTS Industries
D.W. Renzmann Apparatebau GmbH
Dantex
Deco Chem Inc.
DELTAPAK B.V.
DIP Co.
Distribuidora Gráfica Novaro, SA de CV.
Doyle Systems (formerly JE Doyle Co.)
Dynamo, Inc.
Eaglewood Technologies/Sani-Blast
ECO Industry USA
Edward Graphic
FCT Corporation
Flexo Concepts
Flexo Wash
Flexoclean Engineering
FLEXOCLEANERS
Flexomaid
FNV Machinery
Graphbury Smart Solutions, LLC
Hitco Equipment BV
Harper
Harris & Bruno International
I.S.T. Italia Sistemi Tecnologici
S.p.A.
Impreglon Cellaric Inc.
Inglese S.r.l.
INOMETA GmbH
International Surface Technologies
IRAC Srl
Laser Eco Clean
Laserclean BV
LBL Enterprises
LPP Ltd
Max Daetwyler Corporation
Nanovis GmbH
Pamarcos Global Graphics
PolymagTek Inc.
Printtech Tools & Technology
ProFlexo
Recyl SAS
RGK Video Systems
Sanden Global
Simec Group S.r.l.
Solutions Graphiques
Sonic Solutions LLC
Spring Coating Systems
Tech Sleeves
Tech-Cell Ltd
TEC TECHNOLOGIES, RESEARCH AND DEVELOPMENT, S.L.
Tian Laboratories
TKM Meyer GmbH
TLS Anilox GmbH
Tower Products Inc.
Troika Systems Ltd
Ungricht
Weldon Celloplast Limited
Zecher GmbH
Archival and filing systems
El Emrape+C losion
Graphbury Smart Solutions, LLC
Gulf Commercial Group
Jalema Filing Systems
Railex (Filing) Ltd
Sixtrue Srl
Barcode systems
ADVENT
AEO Science Technology Co Ltd
Albertina Trading S.R.O.
AL3 Engineering GmbH
ATECH Srl
Altraphack Hungary Kft.
Arca Etichette Spa
ARMOR
AstroNova Product identification
QuickLabel
Atlantic Zeiser
Automatic Identification Systems
UK Ltd
Autopack Pte Ltd
Avery Dennison
Axicon Auto ID LLC
BarcodeAndLabeling.com
Best Label Enterprise Co Ltd
Bitek Technology Inc. (anytron)
Bluhm
Brady
BUSKRO USA Ltd
cab Produkttechnik GmbH & Co KG
Canon Finetech Inc.
Carl Ostermann Erben GmbH (COE)
CleaningCard.com
CleanTech Cleaning Cards
ColorByDesign Technologies, LLC
Complete Inspection Systems Inc.
ComputeX
Currie Group
D Squared Technology Pte Ltd
D.P.R. Labeling, LLC
Dakota Integrated Services
Datum Colour Print (Hatfield) Ltd
Digital Print Ltd
Dibi
DJM variable data printing
DOMINO
Domino Printing Sciences
Donanix
DPS Innovations LLC
Dropjet Makina Kimya San. Ltd.
EASYLABEL Europa
Edwards Label
El Emrape+C losion
EMERY WILLESDLU
EMWI Group
Epsican
Etulous
Etipack
Etisoft
Eurocoding
EyeC GmbH
Fellow USA
FFEI
Formyflex
FRANCIS BUEHLER AG
Gainscha International Co Ltd
General Labels & Labeling (M)
SDn Bhd
Global Vision Inc
GODEX
Graphi Mecc srl
Graphtech
GSE Dispensing
Gulf Commercial Group
Gulon Inc.
Hangzhou Todaytec Digital Co., Ltd.
Hapa AG
Hu Zhou HengXin Label manufacture Co Ltd
Image Computer Systems
Impression Technology Americas
dba Rapid Label Systems
ImTech Inc.
Inkjet Solutions Limited
Inkstar Office Equipment Factory of Tianjin
Integrated Software Design (ISD)
Interactive Coding Equipment (ICE)
ISys Label
ITW Thermal Films UK
Jolly Technologies Inc
www.akeboose.com
www.andersonvreeland.com
www.arconvert.com
www.armor-group.com
www.accessprinting.com
The EkoCure® family of products
Cutting edge LED UV Inks, Coatings & Adhesives - available today!

LED curing will make your business much more competitive and offers total lower applied cost in UV Flexo!

UV LED Inks provide clear and tangible benefits, such as:
• Up to 50% reduction of energy cost
• Consistent cure control with ability to run presses faster

Flint Group Narrow Web offers full range of LED curings inks...
• EkoCure® F - The original standard UV LED Flexo range especially designed for PSL
• EkoCure® XS - Designed for Shrink applications with excellent adhesions, print quality, color strength & shrink ability
• EkoCure® ANCORA - Low Migration UV LED Flexo Ink with superb press performance & adhesion. Ideal for food packaging applications
• EkoCure® Metallic inks - Highest metallic effect and improved curing at high speeds
• ...A variety of high quality UV LED products

Do you want to know more about our UV LED products? Scan the QR code and get directed to flintgrp.com
Flint Group Narrow Web offers full range of LED curings inks...
• Consistent cure control with ability to run presses faster
• Up to 50% reduction of energy cost

The EkoCure
treatment. Ideal for food packaging applications
• EkoCure® ANCORA

Do you want to know
- The original standard UV LED Flexo range especially designed for PSL
- Designed for Shrink applications with excellent adhesions,
- Low Migration UV LED Flexo Ink with superb press performance

Y earbook 2019

Transfer Trade s.r.l.
Thermal Transfer Solutions Ltd
TEC-IT Datenverarbeitung GmbH
StarTrack Europe v.o.f.
Spandex Group
SoftSolutions, Inc.
Simple Solutions and Innovations Information Technology Co., Ltd.
SAP
SATO
Seagull Scientific
Sermar Machines Srl
Sew Access (Far East) Ltd
Shandong New Beiyan
Information Technology Co., Ltd.
Simple Solutions and Innovations Inc
SNBC Orient Technologies
SoftSolutions, Inc.
Spandex Group
StarTrack Europe v.o.f.
Stratix Corporation
TAYIO KIKAI CO., LTD.
Tanto Labels
TEC-IT Datenverarbeitung GmbH
Tharo Systems, Inc.
Thermal Printer Support Ltd
Thermal Transfer Solutions Ltd
Transfer Trade s.r.l.

TTR Euroworks BV
Typewriter Union Chemische Farben
VINLAK
VIP Color
Weber
Webscan Inc
WRH Global Americas
Xiamen Delphi Automation
Equipment Co., Ltd
Xingxiang Finery Technology Ltd
Yueh Nameplate & Label
Zhangshang Shuguan Self-Adhesive Products Co., Ltd.

Booklet processing systems
adphos Digital Printing GmbH
Aquaflex
Bluhm
BOGRAMA AG
Controls Engineering
CSAT America LLC
CSAT GmbH
Daco Solutions Ltd
Edwards Label
Fix-A-Form Engineering Solutions LLC
G&K-Vijuk Intern. Corp.
GIC (GRAPHIC INTERFACE CONCEPT)
Global Vision Inc
Graphitech
Gulf Commercial Group
Herszog + Heymann
Konica Minolta Business Solutions USA, Inc.
KPC
Longford International Ltd
Muhlbauer, Inc.
PowerForward Inc.
Printing Technology Services, Inc.
Protoform Engineering Solutions, Inc.
Protoform, Inc.
Printing Systems, Inc.
QIPC-EAE Americas
QuickLabel Systems
REA JET GmbH
Recorn Elettroline.
ROFIN-BAASEL, Inc.
S.S.I.
Sai Polad
SATCO
Seagull Scientific
Sermar Machines Srl
Sew Access (Far East) Ltd
Shandong New Beiyan
Information Technology Co., Ltd.
Simple Solutions and Innovations Inc
SNBC Orient Technologies
SoftSolutions, Inc.
Spandex Group
StarTrack Europe v.o.f.
Stratix Corporation
TAYIO KIKAI CO., LTD.
Tanto Labels
TEC-IT Datenverarbeitung GmbH
Tharo Systems, Inc.
Thermal Printer Support Ltd
Thermal Transfer Solutions Ltd
Transfer Trade s.r.l.

Dynic
Edron GmbH & Co. KG
Flexxon Europe Ltd
FUKUJIN TAIKING SPECIAL PAPER CO., LTD
GIC (GRAPHIC INTERFACE CONCEPT)
GIETZ AG
Gombau Group
Granwell Products / Polystyline
Graph! Mecc srl
Greentek Limited
Henkel Electronic Materials LLC
Hollingsworth & Vose Company
Hurlimsa Kimya San.
Hutchison Miller Sales Co.
HuZhoun Hengxin Trademark
Making Bringing Co Ltd
ImpressTek Pty Ltd
Italstick self Adhesive Materials & Coatings
ITL Group
Kimberly-Clark, Technical Paper
Klockner Pentaplast
KWH Plast Ltd
Lana Papiers Spéciaux II
LECTA
Mark Products Corp
Masterpiece Graphix
Matthias Paper Corporation
Mitsubishi HiTec Paper
Optimum Metallising
Pap’Argus
Papertec Inc
Papeteries du Pont de Clai
Perez Trading Company
Phoenix Packaging/Premier Cuts
ProFlexo International Ricoh
ROCHEUX INTERNATIONAL
Sappi
Seibert - PFV
Shenzhen Moma Technology Co., Ltd
Shuanglin Textile Production Ltd
Sidaplax
Smith & McLaurin Ltd
Tech Polini Ltd
TraceTag International Ltd
TRENICLO, S.L.
UBIQUE.TAG
Universal Print Printers
UPM Raflatac
V. Himalk Technology Co Ltd
Valéron Strength Films
Verso Specialty Papers
Wabash Coated Papers
Weber
Weifang Donghang Graphic Technology Inc.
Worthen Coated Fabrics
X-Film Selbstklebefolien GmbH
Xelikon

Charging and discharging systems
DELTAPAK B.V.
Doyle Systems (formerly) E Doyle Co.
Etex Elektrostatik GmbH
Euroto Limited
Ferrarin & Benelli srl
Fraser Anti Static Techniques Ltd
Hamamatsu Photonics
Hurleton Inc.
KAMMANN Maschinenbau GmbH
Kar Ming Industrial Supplies Co Ltd
KERSTEN Elektrostatik GmbH
Meech
MK’S, Ion Industrial
Pillar Technologies - An ITW Company
Simco (Nederland) B.V.
Spekler Electronic AG
Svecorn
Tantec A/S

Coating-laminating machines
Maan Engineering BV
3M Europe
AB M Kinel Siebdruckmaschinen
AB Graphic International Ltd
ABBA Roller
Adhesive Technical Services Ltd
Advanced Machinery NV
Afinia Label
Alpha Laserteck India Ltd
American Ultraviolet
Ariadnet
Beijing Zondogic Automatic Technology Co., Ltd
biomatik Leuze GmbH + Co. KG
Bobst Manchester Limited
Bobst (Shanghai) Management Co. Ltd
Bobst, Inc.
Brother Tape Technology Co Ltd
C.A. Litzler Co., Inc.
Cartridge Machinery
Chem Instruments
Chemicals
Coatech Coating Machinery GmbH

Contiweb
CONVERPACK Benelux B.V.
Corona Supplies Ltd
COP the Coated Products Division of PCI
Cromogenia-Units S.A.
Currie Group
D&B Coating Technologies, Inc
Davis-Standard, LLC
Delta ModTech
DC Press
DIAYV SRL
Dili
Dorey Converting Systems
DPL Industri A/S
DRI-TEC UNLIMITED LLC
Drytac
Dynaloy, Inc
E-Max
Ehret Control GmbH
Esterlam International Ltd
ETI Converting Equipment

www.ashe.co.uk
www.astronovainc.com
www.bel.gr
www.berhalter.com

Yearbook 2019
Rycobel NV
Sherman Treater
SOA INTERNATIONAL, LLC
SOFITAL Corona & Plasma GmbH
Sohney Industrie-technik
SPD Inc
Tantec A/S
Tantec Inc.
Union Chemicar Europe
UV Process Supply, Inc.
Ventaphone
Weldon Celloplast Limited

Cutting/stamping machines
MLT - Micro Laser Technology GmbH
A&M Kinzel Siebdruckmaschinen AB Graphic
Affordable Automation
Afinia
Aghi Drucktechnik
Allen Datagraph Systems, Inc.
ALS Engineering GmbH
Arpeco
Beijing Zodingoc Automatic Technology Co., Ltd
Berhalter AG
Blumer Maschinenbau AG
BOGRAMA AG
Cartek Industries (Taiwan) Corp.
Cartes S.R.L.
Cathbridge Machinery
CMC Libetecnik GmbH
Comercial Arquè, S.A.
Catbridge Machinery
Daco Solutions Ltd
Datum Colour Print (Hatfield) Ltd
DCM USIMECA
Delta ModTech
DG Press
Dienes Werke für Maschinenteile GmbH & Co. KG
Dorey Converting Systems E.H. Will GmbH
Edale Ltd
Emmendinger Maschinenbau GmbH
EMT International
Epilog Laser
Esko
Expert Stephan Heuser GmbH & Co. KG
FAES AG
FLEXOR (EMIS) Ltd
FRESCHI ITALIA S.R.L.
Future Pack / KOREA
Gannicott Limited
GIC (GRAPHIC INTERFACE CONCEPT)
GIETZ AG
Gold Fai Machinery
Golden Honetic Laser (Dongguan Honetic Machinery)
Grafotronic AB
Graphitec Corporation
Guidolin Girotto S.R.L.

Hans-Gronhi Graphic Technology
Company Limited
Helios Elco Cavigna srl
Herzog + Heymann
Holby Williams International
Holweg-Weber
Huadi Machinery Co., Ltd
Hunkeler AG
Infinity Folis, Inc.- UFI Group
Company
Jiaozuo Zhourim Digital Material Co Ltd
Jumet Sp. z o.o. Sp.K.
Karlsruhe Development
KBA Latina
Kocher + Beck GmbH + Co.
Rotationssatztechnik KG
Komori-Chamber
Kugler-Womako GmbH
Kumar Labels
Label Industry Consultants (& Machinery) Ltd
Lieber Dies
Link Lab Machinery Co Ltd
Lombardi Converting Machinery Srl
Lutz GmbH & Co. KG
m print morlock gmbh co. kg
MBO America
Meccanica Maggiore
MEZLER maschinenbau GmbH
Mühlbauer
New Solution S.A.
Newart Ltd
Packers
PCM Image-Tek
PGI TECHNOLOGIES PVT. LTD
Polar-Mohr
Precise Graphic India Pvt Ltd
Preco, Inc.
Printum GmbH
Prisma Srl
Profloxo International
Rapid Label Systems
Rietstack
Rollem USA
Rosas&Rosas GmbH
ROTOCONTROL
Rotoflex
Ruian Jingda Printing Machinery Co Ltd
Sam Meccanica Srl
SANJIO Semi-rotary Presses
Schober USA, Inc.
SchoberTechnologies GmbH
SEI Laser
Seraime
Shantou Yiming Holotech
Machine Co Ltd
SMAG (SMAG SAS)
Sohn Mfg
Soma Engineering
Spartanic
Spiller GmbH
SRC Systems Limited
Starfoil Technology Netherlands bv
STOMA GmbH
Summa
Summa, Inc.
Suntech & Co LLC
Tangshan Wanjie Europe
Thomson Nano Elco Press Co
Trojan Color Systems
Trojanlabel
Unigraphica AG
Universal Engraving, Inc.- UEI
Group Company
Van ZALINGE Benelix B.V.
WEIGANG Machinery
Werosys ApS
Wink Stanzwerkzeuge GmbH & Co. KG
Xiamen Delish Automation
Equipment Co, Ltd
Zhongshan Shuguan Self-Adhesive Products Co, Ltd

Cylinders, printing and magnetic
Action Rotary Die, Inc.
Anilox Laser Technology LTD - ALT
Apple Die
Applied Laser Engineering Ltd.
BAT Graphics
Bunting Magnetics Co.
Conversource Inc.
DELTA-PACK B.V.
Electro Optic
ESON CE 6.0
Form-und Stanztechnik GmbH
Gallus Ferd. Rüesch AG
Gardall Manufacturing
Corporation
General Metal Engraving
Hell Gravure Systems GmbH & Co. KG
Hoffeld Tool & Die Ltd
Interflex Laser Engravers
Kocher + Beck
Kris Flexipacks Pvt Ltd
LARTEC - Flexible Dies
Leaderle Machine Company
Luminite Products Corp.
New Solution S.A.
Nu Tech Coatings, LLC
PGI TECHNOLOGIES PVT. LTD
Platingtech Beschichtung GmbH
Precise Graphic India Pvt Ltd
ProFlexo International
Reel To Reel International Ltd
Rollem USA
Rossini UK Ltd
Rotary Die Company Sp. z o.o.
Rotary Technology (Guangzhou) Co Ltd
Rotometal
RotoMetrics
RotoTechnix
Sinkotech
Spiller GmbH
Suron A.C.A. Ltd.
Svecom
Synthogra
TD Wright Inc
Tech Sleeves
TXM Meyer GmbH
Universal Engraving, Inc.- UEI
Group Company
UV Graphic Technologies Pvt. Ltd. (formerly GIT)
Weldon Celloplast Limited
Wilson Manufacturing Co.
Wink Stanzwerkzeuge GmbH & Co. KG
Zeche GmbH

Data processing services
Athena Graphics
BEL Computer Systems
Bitek Technology Inc. (anytron)
CHILI Publish
Hybrid Software
iSRA Vision Parsytec
Nikka Research Deutschland GmbH
One Box Vision
SoftSolutions, Inc.
theurer.com
TLS Anilox GmbH
X-Rite Europe GmbH

Desktop printers
A&M Kinzel Siebdruckmaschinen
ADVENT
AEBO Science Technology Co Ltd
Afinia
AstroNova ProductIdentification
QickLabel
Atlantic Zeiser
Atwell Self-Adhesive Labelers
Automatic Identification Systems UK Ltd
Bitek Technology Inc. (anytron)
Brady
cab Karlsruhe GmbH & Co KG
Canon Finetech Inc.
CleaningCard.com
CleanTech Cleaning Cards
ColorDyne Technologies, LLC
Computype
Crest Solutions
D.P.R. Labeling, LLC
Dakota Integrated Services
Digital Print Ltd
DJM variable data printing
Dropjet Makina Kirnya San. Ltd.
Sti.
DuraFast Label Company
Dufaços Inc
EMERY WILLEDD SLU
EMWI Group
Epson
Fujifilm North America
Corporation
GainScha International Co LTD
GODEX
Codex International Americas
Graphic Marking Systems
Graphitec Corporation
Gulf Commercial Group
Gulston Inc.
Hu Zhou HengXin Label manufacture Co Ltd
Image Computer Systems
Impika
Impression Technology Europe

www.silicones.elkem.com
www.focuslabel.com
www.gallus-group.com
www.graphimecc.it

Yearbook 2019
IMTech Inc.
InkJet Solutions Limited
ITL Group
ITW Thermal Films UK
Iwatsu Electric Co Ltd
KiCTeam
Leadman Technology (Astro-Med-QLS System, Asia)
M Print LLC
MercierStream LLC
Mastercorp Group
Matan Digital Printers
Meminjet Labels
Microplex
Mimaki
Modi Paper & Label Systems
Mutoh Belgium n.v.
Neuralabel Printing Solutions
OKI Europe Ltd
Palmetto Imaging Technology, LLC
Paul Leibinger GmbH & Co. KG
Paxar/Avery Dennison
Positive ID Labelling Systems
Primera Technology, Inc
Print On Labels
PRISM ID Limited
Prototype & Production Systems, Inc./DICE Graphic Technologies
QuickLabel Systems Inc./DICE Graphic Technologies
Prototype & Production Systems, PRISYM ID Limited
Print On Labels
Rebo BV
Rena, a Neopost Brand
Roland DG
Rti Digital
S+S, Inc.
Screen USA
Seagull Scientific
Shandong New Beiyang Information Technology Co., Ltd.
Simple Solutions and Innovations Inc.
Sovereign Labelling Systems Ltd
Spandex Group
SSI
Stratix Corporation
Summa
Summa, Inc.
Systems Print Media Ltd
Tanto Labels
Test Supplier | Enhanced
Tharco Systems, Inc.
Thermal Printer Services Ltd
Thermal Transfer Solutions Ltd
Transfer Trade s.r.l.
Union Chemica Europae
VIP Color
Zebra Technologies Europe Limited

Dies and tooling (rotary and flatbed)
Action Rotary Die, Inc.
Affordable Automation
Anderson Europe GmbH
Apple Die
Atlas Die
Atlas Die LLC
Berhalter AG
Best Cutting Die

Blumer Maschinenbau AG
Brenna Srl
Bunting Magnetics Co.
Central Ink Corporation
CONVERPACK Benelux B.V.
David K. Hart Company
De Rossi Vittoriano S.r.l.
DELTAPAK B.V.
Diehard Dies Pty Ltd
Dienes Werke für Maschinen dividing GmbH & Co. KG
DMS, INC.
Drohmann GmbH Easycut
Durafoex Inc
Ehret Control GmbH
Electro Optic (Asia) Pvt. Ltd.
Electro Optic US
Elektro Optik-Werkzeugtechnik GmbH
Emmendinger Maschinenbau GmbH
EMT International
ESC OZ s.r.o.
Flexo Label Advantage Group LLC
Form-und Stanztechnik GmbH
Gannicot Limited
Gardall Manufacturing Corporation
General Metal Engraving
Glunz & Jensen
GRINCOURT
Hoffeld Tool & Die Ltd
ITW
Kar Ming Industrial Supplies Co Ltd
Karl Marbach GmbH & Co. KG
Kocher & Beck GmbH + Co.
Rotationsstanztechnik KG
Kocher+Beck USA, L.P.
Komori-Chambon
KURZ, LEONHARD, Stiftung & Co. KG
LARTEC - Flexible Dies
Ledger Machine Systems
Lenmu Talleres SA
Lievieh Dies
Madern
Medex Precision Machined Products
Midway Rotary Die Solutions
Neryos SAS
Newart Ltd
Packers
Polar-Mohr
Precise Graphic India Pvt Ltd
Printing Machinery Company (PMC)
Printum UV
Pro-Cut Dies Ltd
ProFlex International
Quadrel Labeling Systems
RM (Rotary) Services Ltd
Rold GmbH
Rollem USA
Rotary Die Company Sp. z o.o.
Rotary Technology (Guangzhou) Co Ltd
Rotometal
RotoMetrics
RotoTechnix
Schober
Simonds/Notting Steel Rule Division
Sinkotech
Sohn Mfg
Specialised Perforating Services
Spiller GmbH
Stampag
STOMA GmbH
Suron A.C.A. Ltd.
TD Wright Inc
TECHNI FORM
Techniform
Tools & Production Inc.
UEI Falcontec
UEI Falcontec - Switzerland
Universal Engraving, Inc.-UEI Group Company
UV Graphic Technologies Pvt. Ltd.
(formerly CITI)
W&D Machinery Co., Inc.
Wilson Manufacturing Co.
Wink Stanzwerkezeuge GmbH & Co. KG

Digital converting equipment
AB Graphic
Afinia
Allen Datagraph Systems, Inc.
ALS Engineering GmbH
Ashe Converting Equipment
AzTech Converting Systems
B. Bunch Company, Inc.
Bar Graphic Machinery Ltd
BOGRAMA AG
Brady Brotech Graphics Co., Ltd
Carl Ostemann Erben GmbH [CDE]
Cartes S.r.l.
Colorodyne Technologies, LLC
COMPONEX INC
Continental Datablade
Contiweb
CONVERPACK Benelux B.V.
Converting Equipment
International Inc
Converting Equipment Intl.
Corona Supplies Ltd
CSAT
Currie Group
D.P.R. Labeling, LLC
D.P.R. S.r.l.
Daco Solutions Ltd
DALIM SOFTWARE GmbH
Delta ModTech
DG Press
Dilli
Distribuidora Gráfica Novaro, SA de CV.
Dorey Converting Systems
EMT International
Epson
FFEI
FlexoExport Ltd
FLEXOR (EMIS) Ltd

Focus Label Machinery Ltd
FRANCIS BUEHLER AG
Fujifilm North America Corporation
GIC (GRAPHIC INTERFACE CONCEPT)
Golden Hontec Laser (Donnguan Hontec Machinery)
Gonderflex International Inc
Gracifica Maschinenbau AG
Grafick Maskinfabrik
Grafotronic AB
Heraeus Nobbleight LLC
Herzog + Heymann
HP Indigo
Hybrid Software
Impression Technology Europe
International Financial Services
J&R Converting Machinery
Karlville Development LLC
Konica Minolta Business Solutions U.S.A. Inc.
Kumar Labels
Label Industry Consultants (& Machinery) Ltd
Labeltech
LasX Industries, Inc.
Lemorau
LeoMat GmbH
LPP Ltd
LTDHD
Maxcess International
MBO America
Mida Maquinaria
Monotech Systems Ltd
MPS Systems B.V.
Neryos SAS
Newfoil Machines Limited
OKI Europe Ltd
ORTHOTEC, WAN AN PRECISE MACHINERY WORKS CO., LTD.
Perez Trading Company
PRG TECHNOLOGIES PVT. LTD
Preco, Inc.
Printum GmbH
Proflexo International
Rapid Label Systems
Rapid Machinery Company
Reel To Reel International Ltd
Rietstiek
Rollei USA
Rosas GmbH
ROTOCONTROL
Rotoflex
SEI Laser
Sigrist Engineering AG
SMAG (SMAG SAS)
Sohn Mfg
Spartanics
Sunbelt Sales & Marketing Associates, Inc.
Tec Lighting, Inc.
Telstar Engineering Inc.
Test Supplier | Enhanced
Trojan Color Systems
UV Ray S.r.l.
VALLOY/JANYTRON
VAN DEN BERGH Consulting bvba
VAN ZALINGE Benelux B.V.

www.www.htd.ie
www.icapsira.com
www.industrialij.com
www.inkitsolutions.co.uk

Yearbook 2019
Yearbook 2019

Digital presses
A&M Kinzel Siebdruckmaschinen
AAA Press International, Inc.
adphos Digital Printing GmbH
Afonia
All Printing Resources
Allen Datagraph Systems, Inc.
ALS Engineering GmbH
Amica Systems (Europe) B.V.
Anderson & Vreeland, Inc.
AstroNova Product Identification
QuickLabel
Atlantic Zeiser
Atlantic Zeiser Inc.
BE-MA Editrice Srl
Bitek Technology Inc. (anytron)
Bluhm
Brady
BTS Industries (S) Pte Ltd
BUSKRO USA Ltd
Canon Finetech Inc.
Carl Ostermann Erben GmbH
Cerm Business Management Software
Chromos AG
Color-Logic Inc
Colorodyne Technologies, LLC
COMPONEX INC
Continental Datalabel
Convertech Graphic Technics AB
CSAT
Currie Group
D.P.R.
Daco Solutions Ltd
Dantex
Data Label
Datatum Colour Print (Hatfield) Ltd
DC Press
Digital Print
DILLI
Dimuken (CR) Ltd
Discount Labels
Distribuidora Gráfica Novaro, SA
de CV.
DPM variable data printing
DOMINO
Domino Printing Sciences
DPL Industries A/S
DPS Innovations LLC
Dropjet Makina Kimya San. Ltd.
Sti.
DuraFast Label Company
Durafols Inc
Durst
Edale Ltd
EFI
Electro Optic Werkzeugtechnik GmbH
Epson
Excelerate® by Lumen Dynamics
Fellinger Industrielektronik GmbH
Ferrostaal AG
FFEI
Flexo Label Advantage Group LLC
(Flag)
FlexoExport Ltd
Focus Label Machinery Ltd
Fujio Copian (UK) Ltd
Fujifilm North America Corporation
Division
Fusion UV Systems Inc.
Futec Europe GmbH
Galusha Prod. Ruesch AG
GB Flexo Equipment
GCC Europe BV
GPC (GRAPHIC INTERFACE
CONCEPT)
Golden Hontec Laser (Donnguan
Hontec Machinery)
Gravicon Maschinenbau AG
Graphi Mecc srl
Graphic Marking Systems
Graphic Sciences Inc.
Graphitcor Corporation
Greentek
GTG Graphic Technology, Inc.
Gulf Commercial Group
Haga AG
HC Miller Press
Heidelberg Druckmaschinen AG
Hewlett Packard
HIL bv.
Hoya Candeo Optronics Corp.
HP Indigo
Impika
Impress BV
Impression Technology Americas
dbi Rapid Label Systems
Impression Technology Europe
ImTech Inc.
Industrie Inkjet
Inglese S.r.l
Inkjet Solutions Limited
Intec Printing Solutions
International Financial Services
INX International Ink Co.
IPT Digital
iSys Label
ITI Group
Iwatsu Electric Co Ltd
J. F. Machines Ltd.
JH Davenport and Sons Ltd.
Kammann Machines Inc.
KBA Latina
Kodak
Konica Minolta
KPC
Label Industry Consultants (&
Machinery) Ltd
Label Pack
Leadman Technology (Astro-
Med-QLS System, Asia)
LINTEC Corporation
Lucy Huaguang Graphics Co Ltd
M Print LLC
m print morlok gmbh co. kg
Mainstream LLC
Mark Andy
Marken-Image CSAT GmbH
Matan Digital Printers
MCS, Inc.
Memjet Labels
mercian Labels Ltd
MGI
Michelman
Mimaki
Myakoshi Printing Machinery,
Co. Ltd.
Modi Paper & Label Systems
Monotech Systems Ltd
MPS Systems B.V.
Mutoh Belgium n.v.
Nadco Tapes & Labels, Inc
Neryos SAS
New Solution S.A.
Newfoil Machines Limited
Nilpeter
NuCoat Inc
OKI
Omet Srl
One Solution SA
Paul Leibinger GmbH & Co. KG
PCM Image-Tek
Pillar Technologies - An ITW
Company
Primera
Printing Technology Services, Inc.
Printum GmbH
Propyclix
Punch Graphix
QuickLabel Systems
Rapid Label Systems
Rapid Machinery Company
Rena, a Neopost Brand
Reapcor, Inc.
Rochester Institute of Technology
Roland
Rti Digital
S&B LABEL spol. s r.o.
Sanjo Machine Works Ltd
Screen Europe
Screen USA
Sensient Imaging Technologies SA
Shandong Taibao Anti-
Counterfeiting Technology
Products Co., Ltd
SHIKI MACHINE SUPPLY CORP.
Spandex Group
SPCPrints
Stork Prints America, Inc.
Styers Equipment Company
Summa
Sun Chemical
Suntech & Ko LLC
Super Web Digital
Suron A.C.A. Ltd.
TCS Technologies
Tec Lighting, Inc.
TEC-IT Datenerverarbeitung GmbH
Test Supplier | Enhanced
Tolgate Labels
Toshiba Tec Corporation
Trojan Color Systems
Trojanlabel
UniNet
Universal Print Partners
UTECO NORTH AMERICA INC.
VAN ZALINGE Benelux B.V.
VIP Color
Weber
Weifang Donghang Graphic
Technology Inc.
Werosys ApS
Xaar Americas
Xaar PLC
Xante Corporation
Xelikon
YINHUA Printing Technology
Co., Ltd

Doctor blades
Agfa Graphics
Allion Systems Corporation
Conversource Inc.
CT Graphic Arts
Flexo Concepts
FLXON
HC Miller Press
Jv Imaging Solutions, Inc
PrimeBlade Sweden AB
Provident
Quality Discount Press Parts &
Equipment
Retroflex Inc.

Dome labeling-doming machines
A&M Kinzel Siebdruckmaschinen
Cherque, Inc.
Color-Dec
Cytec Industries Inc.
Demak
Development Associates Inc.
DomeLabels
Dometag
Euro Drop S.A.S.
Hydorne Inc
Morgan Design Group
RDS/Acuflow Inc
Sheepscot Machine Works
Sonachim

Drive and control systems
A&M Kinzel Siebdruckmaschinen
Altec Vision Equipment
Baumüller Benelux BV
Bosch Rexroth
BST
CC1, INC.
Cleveland Motion Controls
CMC Controls
Comprint, Inc.
Davis-Standard, LLC
DieQua Corp.
Dover Flexo Electronics, Inc.
etronat GmbH
FMS USA, Inc.
Focus Label Machinery
Image Lake Systems, Inc.
Mach III Clutch Inc
MAGPowers
Mainplate Controls
MEROBEL
Parkland International
Pillar Technologies - An ITW
Company
Plyoprite America Corp
Process Sensors (Europe) Limited
QI Press Controls
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Products/Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>QIPC-EAE Americas</td>
<td>Re S.p.A. Controlli Industriali</td>
</tr>
<tr>
<td>S-two GmbH</td>
<td></td>
</tr>
<tr>
<td>Selectra Srl</td>
<td></td>
</tr>
<tr>
<td>SensoTec GmbH</td>
<td></td>
</tr>
<tr>
<td>SRC Systems Limited</td>
<td></td>
</tr>
<tr>
<td>Tandler Zahnrad und Getriebefabrik GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>Test Supplier</td>
<td>Enhanced Valmet</td>
</tr>
<tr>
<td><strong>Engraving machinery</strong></td>
<td></td>
</tr>
<tr>
<td>Anderson Europe GmbH</td>
<td>D.P.R.</td>
</tr>
<tr>
<td>Epilog Laser</td>
<td></td>
</tr>
<tr>
<td>Flexoclean Engineering</td>
<td></td>
</tr>
<tr>
<td>GCC Europe BV</td>
<td></td>
</tr>
<tr>
<td>Hans-Gronhi Graphic Technology Company Limited</td>
<td></td>
</tr>
<tr>
<td>Hell Gravure Systems GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>Inglese S.r.l</td>
<td></td>
</tr>
<tr>
<td>LANG GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>SPGPrints</td>
<td></td>
</tr>
<tr>
<td>Stork Prints America, Inc. Trotec</td>
<td></td>
</tr>
<tr>
<td>Universal Engraving, Inc.- UEI Group Company</td>
<td></td>
</tr>
<tr>
<td>Universal Laser Systems, Inc.</td>
<td></td>
</tr>
<tr>
<td><strong>Fabric label materials</strong></td>
<td></td>
</tr>
<tr>
<td>AstroNova Product identification</td>
<td></td>
</tr>
<tr>
<td>QuickLabel</td>
<td></td>
</tr>
<tr>
<td>Avery Dennison</td>
<td></td>
</tr>
<tr>
<td>B-Core Incorporation</td>
<td></td>
</tr>
<tr>
<td>Best Label Enterprise Limited Co</td>
<td></td>
</tr>
<tr>
<td>Budaval AG</td>
<td></td>
</tr>
<tr>
<td>Colour Ribbons Ltd</td>
<td></td>
</tr>
<tr>
<td>Comercial Arque, S.A.</td>
<td></td>
</tr>
<tr>
<td>Dunmore</td>
<td></td>
</tr>
<tr>
<td>DuPont México, S.A. de C.V.</td>
<td></td>
</tr>
<tr>
<td>Dynic</td>
<td></td>
</tr>
<tr>
<td>Emax Label Solutions</td>
<td></td>
</tr>
<tr>
<td>Etiquetas Adesivas Ltd</td>
<td></td>
</tr>
<tr>
<td>FF EI</td>
<td></td>
</tr>
<tr>
<td>Folien Fischer AG</td>
<td></td>
</tr>
<tr>
<td>Hollingsworth &amp; Vose Company</td>
<td></td>
</tr>
<tr>
<td>HuZhou Hengxin Trademark Making Bringoing Co Ltd</td>
<td></td>
</tr>
<tr>
<td>HuZhou Kingdom Coating Industry Co. Ltd</td>
<td></td>
</tr>
<tr>
<td>HuZhou Siny Label material Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Icap-Sira Chemicals And Polymers Spa</td>
<td></td>
</tr>
<tr>
<td>Italstick Self Adhesive Materials &amp; Coatings</td>
<td></td>
</tr>
<tr>
<td>ITD S.r.l</td>
<td></td>
</tr>
<tr>
<td>Itochu Deutschland GmbH</td>
<td></td>
</tr>
<tr>
<td>IW Tows BV</td>
<td></td>
</tr>
<tr>
<td>Kashra Ribbon</td>
<td></td>
</tr>
<tr>
<td>Leviteks Ltd.</td>
<td></td>
</tr>
<tr>
<td>Manuli Film Spa</td>
<td></td>
</tr>
<tr>
<td>Metagalaxy Industries Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Milami Europe BV</td>
<td></td>
</tr>
<tr>
<td>MSM</td>
<td></td>
</tr>
<tr>
<td>MultiSTIQ International Coating</td>
<td></td>
</tr>
<tr>
<td>B.V.</td>
<td></td>
</tr>
<tr>
<td>NAM SING RIBBON (H.K.) LTD</td>
<td></td>
</tr>
<tr>
<td>Nastrificio di Cassano SpA</td>
<td></td>
</tr>
<tr>
<td>Nukote International, Inc.</td>
<td></td>
</tr>
<tr>
<td>Paper Resources, Inc.</td>
<td></td>
</tr>
<tr>
<td>Phaser/Avery Dennison</td>
<td></td>
</tr>
<tr>
<td>Premier Coating &amp; Converters</td>
<td></td>
</tr>
<tr>
<td>Ritrama</td>
<td></td>
</tr>
<tr>
<td>Roll Cover Italiana S.r.l</td>
<td></td>
</tr>
<tr>
<td>Rolling Optics</td>
<td></td>
</tr>
<tr>
<td>Rotollicco Pugiiese Srl</td>
<td></td>
</tr>
<tr>
<td>Rotulo Ltd</td>
<td></td>
</tr>
<tr>
<td>Ruian Jingda Printing Machinery Co. Ltd</td>
<td></td>
</tr>
<tr>
<td>Sanyo Corporation of America SATO</td>
<td></td>
</tr>
<tr>
<td>Shanghai Realatic Trading Company Ltd</td>
<td></td>
</tr>
<tr>
<td>Shuanglin Textlab Production Ltd</td>
<td></td>
</tr>
<tr>
<td>Thermo Code System</td>
<td></td>
</tr>
<tr>
<td>Thiollier</td>
<td></td>
</tr>
<tr>
<td>Transfer Trade s.r.l</td>
<td></td>
</tr>
<tr>
<td>TTR Euroworks BV</td>
<td></td>
</tr>
<tr>
<td>VanDerEng BV</td>
<td></td>
</tr>
<tr>
<td>Worthen Coated Fabrics</td>
<td></td>
</tr>
<tr>
<td><strong>Fabric label presses</strong></td>
<td></td>
</tr>
<tr>
<td>A&amp;M Kinzel Siebdruckmaschinen</td>
<td></td>
</tr>
<tr>
<td>Carlisle Bros</td>
<td></td>
</tr>
<tr>
<td>Esterlam International Ltd</td>
<td></td>
</tr>
<tr>
<td>Focus Label Machinery Ltd</td>
<td></td>
</tr>
<tr>
<td>Grafische Systeme Volker Schischke</td>
<td></td>
</tr>
<tr>
<td>Graphimat - LABELPACKMACHINE</td>
<td></td>
</tr>
<tr>
<td>Huzhou Unifull Label Fabric Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>Jakob Müller AG</td>
<td></td>
</tr>
<tr>
<td>Label Pack</td>
<td></td>
</tr>
<tr>
<td>Label Planet Pvt. Ltd</td>
<td></td>
</tr>
<tr>
<td>MALBATE</td>
<td></td>
</tr>
<tr>
<td>MELZER maschinenbau GmbH</td>
<td></td>
</tr>
<tr>
<td>NAM SING RIBBON (H.K.) LTD</td>
<td></td>
</tr>
<tr>
<td>Pillar Technologies - An ITW Company</td>
<td></td>
</tr>
<tr>
<td>Profilo International</td>
<td></td>
</tr>
<tr>
<td>Ruian Jingda Printing Machinery Co. Ltd</td>
<td></td>
</tr>
<tr>
<td>Shun Hing Trade Mark Fty. Ltd</td>
<td></td>
</tr>
<tr>
<td>Topack Maquinaria S.L</td>
<td></td>
</tr>
<tr>
<td><strong>Finishing equipment, slitters and rewinders</strong></td>
<td></td>
</tr>
<tr>
<td>A&amp;M Kinzel Siebdruckmaschinen</td>
<td></td>
</tr>
<tr>
<td>AB Graphic</td>
<td></td>
</tr>
<tr>
<td>Accraply</td>
<td></td>
</tr>
<tr>
<td>Advance Graphics Equipment Afinia</td>
<td></td>
</tr>
<tr>
<td>Afina Label</td>
<td></td>
</tr>
<tr>
<td>Aghili Drucktechnik</td>
<td></td>
</tr>
<tr>
<td>ALS Engineering GmbH</td>
<td></td>
</tr>
<tr>
<td>Apexrototech Industries</td>
<td></td>
</tr>
<tr>
<td>Ashe Converting Equipment</td>
<td></td>
</tr>
<tr>
<td>A2Tech Converting Systems B. Bunch Co</td>
<td></td>
</tr>
<tr>
<td>Bandall International</td>
<td></td>
</tr>
<tr>
<td>Bar Graphic Machinery Ltd</td>
<td></td>
</tr>
<tr>
<td>Beijing Zodingoc Automatic Technology co.Ltd</td>
<td></td>
</tr>
<tr>
<td>Berkeley Machinery</td>
<td></td>
</tr>
<tr>
<td>Bera s.r.l bielomatik</td>
<td></td>
</tr>
<tr>
<td>Bitek Technology Inc. (anytron)</td>
<td></td>
</tr>
<tr>
<td>Blower Application Company</td>
<td></td>
</tr>
<tr>
<td>Blumer Maschinenbau AG</td>
<td></td>
</tr>
<tr>
<td>BODRAMA AG</td>
<td></td>
</tr>
<tr>
<td>Brotech Graphics Co., Ltd</td>
<td></td>
</tr>
<tr>
<td>BW Bielomatik</td>
<td></td>
</tr>
<tr>
<td>C. A. Litzler Co., Inc</td>
<td></td>
</tr>
<tr>
<td>Cartek Industries (Taiwan) Corp.</td>
<td></td>
</tr>
<tr>
<td>Cambridge Machinery</td>
<td></td>
</tr>
<tr>
<td>Colorodynamic Technologies, LLC</td>
<td></td>
</tr>
<tr>
<td>COMPONENTX INC</td>
<td></td>
</tr>
<tr>
<td>Contech</td>
<td></td>
</tr>
<tr>
<td>Contiweb</td>
<td></td>
</tr>
<tr>
<td>Controls Engineering</td>
<td></td>
</tr>
<tr>
<td>CONVERPACK Benelix B.V.</td>
<td></td>
</tr>
<tr>
<td>Converting Equipment</td>
<td></td>
</tr>
<tr>
<td>DCM</td>
<td></td>
</tr>
<tr>
<td>De Rossi Vittoriano S.r.l</td>
<td></td>
</tr>
<tr>
<td>Deacor Industries Ltd</td>
<td></td>
</tr>
<tr>
<td>Delta ModTech</td>
<td></td>
</tr>
<tr>
<td>DG Press</td>
<td></td>
</tr>
<tr>
<td>Dienes Werke für Maschinenetalle GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>Doveconverting Systems</td>
<td></td>
</tr>
<tr>
<td>DRI-TEC UNLIMTED LLC</td>
<td></td>
</tr>
<tr>
<td>DSE</td>
<td></td>
</tr>
<tr>
<td>Durafast Label Company</td>
<td></td>
</tr>
<tr>
<td>E.C.H. Will GmbH</td>
<td></td>
</tr>
<tr>
<td>Ehret Control GmbH</td>
<td></td>
</tr>
<tr>
<td>Electro Optic Werkzeugtechnik GmbH</td>
<td></td>
</tr>
<tr>
<td>EMT International</td>
<td></td>
</tr>
<tr>
<td>Engrom</td>
<td></td>
</tr>
<tr>
<td>Eski</td>
<td></td>
</tr>
<tr>
<td>ETI Converting Equipment</td>
<td></td>
</tr>
<tr>
<td>Etelon Corporation</td>
<td></td>
</tr>
<tr>
<td>EUROMAC</td>
<td></td>
</tr>
<tr>
<td>Expert Stephan Heuser GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>FAES AG</td>
<td></td>
</tr>
<tr>
<td>Faustel, Inc.</td>
<td></td>
</tr>
<tr>
<td>Fellinger Industrielektronik GmbH</td>
<td></td>
</tr>
<tr>
<td>Flexo-Printing Equipment Corp.</td>
<td></td>
</tr>
<tr>
<td>Focus Label Machinery Ltd</td>
<td></td>
</tr>
<tr>
<td>Fortisblades</td>
<td></td>
</tr>
<tr>
<td>G&amp;K-Vijuk Intern. Corp.</td>
<td></td>
</tr>
<tr>
<td>GEBR. SCHICHTKE</td>
<td></td>
</tr>
<tr>
<td>Goldon Hontec Laser (Donnguan Hontec Machinery)</td>
<td></td>
</tr>
<tr>
<td>Gonderflex International Inc</td>
<td></td>
</tr>
<tr>
<td>Graficon Maschinenbau AG</td>
<td></td>
</tr>
<tr>
<td><strong>Grafische Systeme Volker Schischke</strong></td>
<td></td>
</tr>
<tr>
<td>Grafisk Maskinfabrik</td>
<td></td>
</tr>
<tr>
<td>Grafotronic AB</td>
<td></td>
</tr>
<tr>
<td>Graphtec Corporation</td>
<td></td>
</tr>
<tr>
<td>GSM Graphic Supplies &amp; Machinery Ltd</td>
<td></td>
</tr>
<tr>
<td>H.C. Miller Press</td>
<td></td>
</tr>
<tr>
<td>Han Yang Industries</td>
<td></td>
</tr>
<tr>
<td>Heidelberg Druckmaschinen AG</td>
<td></td>
</tr>
<tr>
<td>Holty Williams International</td>
<td></td>
</tr>
<tr>
<td>Holweg-Weber</td>
<td></td>
</tr>
<tr>
<td>Hunkeler AG</td>
<td></td>
</tr>
<tr>
<td>Hyden Packaging Pvt Ltd</td>
<td></td>
</tr>
<tr>
<td>Impression Technology Europe</td>
<td></td>
</tr>
<tr>
<td>Infinity Foils, Inc.- UEI Group Company</td>
<td></td>
</tr>
<tr>
<td>Company International Surface Technologies</td>
<td></td>
</tr>
<tr>
<td>J&amp;K Converting Machinery</td>
<td></td>
</tr>
<tr>
<td>Jakob Müller AG</td>
<td></td>
</tr>
<tr>
<td>Jumret Sp. z.o.o. Sp.K.</td>
<td></td>
</tr>
<tr>
<td>Kampf Schneid- und Wickeltechnik GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>Karl Menzel Maschinenfabrik</td>
<td></td>
</tr>
<tr>
<td>Karville</td>
<td></td>
</tr>
<tr>
<td>Kompac Technologies</td>
<td></td>
</tr>
<tr>
<td>KOR Engineering Inc.</td>
<td></td>
</tr>
<tr>
<td>KT-1-A Quantum Design Company</td>
<td></td>
</tr>
<tr>
<td>Kugler-Womako GmbH</td>
<td></td>
</tr>
<tr>
<td>Kurnar Labels</td>
<td></td>
</tr>
<tr>
<td>Labelmate</td>
<td></td>
</tr>
<tr>
<td>Labeltech</td>
<td></td>
</tr>
<tr>
<td>Laem Systems Srl</td>
<td></td>
</tr>
<tr>
<td>Larson/Burton Inc.</td>
<td></td>
</tr>
<tr>
<td>LasX Industries, Inc.</td>
<td></td>
</tr>
<tr>
<td>Lemorau</td>
<td></td>
</tr>
<tr>
<td>Lemu Talleres SA</td>
<td></td>
</tr>
<tr>
<td>LeoMat GmbH</td>
<td></td>
</tr>
<tr>
<td>Lombardi Converting Machinery Srl</td>
<td></td>
</tr>
<tr>
<td>Longford International Ltd</td>
<td></td>
</tr>
<tr>
<td>LLP Ltd</td>
<td></td>
</tr>
<tr>
<td>Lutz GmbH &amp; Co. KG</td>
<td></td>
</tr>
<tr>
<td>Mainplate Controls</td>
<td></td>
</tr>
<tr>
<td>Markem-Imaje CSAT GmbH</td>
<td></td>
</tr>
<tr>
<td>Matix, Inc.</td>
<td></td>
</tr>
<tr>
<td>Maxcess International</td>
<td></td>
</tr>
<tr>
<td>MBO America</td>
<td></td>
</tr>
<tr>
<td>MELZER maschinenbau GmbH</td>
<td></td>
</tr>
<tr>
<td>MidAmerican Rubber</td>
<td></td>
</tr>
<tr>
<td>Mida Maquinaria</td>
<td></td>
</tr>
<tr>
<td>Montotec Systems Ltd</td>
<td></td>
</tr>
<tr>
<td>NEPATA GmbH</td>
<td></td>
</tr>
<tr>
<td>Neryos SAS</td>
<td></td>
</tr>
<tr>
<td>New Solution S.A.</td>
<td></td>
</tr>
<tr>
<td>Nicely Machinery Development Co. Ltd</td>
<td></td>
</tr>
<tr>
<td>Nikka Research Deutschland</td>
<td></td>
</tr>
<tr>
<td>GmbH</td>
<td></td>
</tr>
<tr>
<td>Norston</td>
<td></td>
</tr>
<tr>
<td>OKI Europe Ltd</td>
<td></td>
</tr>
<tr>
<td>Omegher Srl</td>
<td></td>
</tr>
<tr>
<td>Packers</td>
<td></td>
</tr>
<tr>
<td>Pack-Arugas</td>
<td></td>
</tr>
<tr>
<td>Parkland International</td>
<td></td>
</tr>
<tr>
<td>Pasquato SNC</td>
<td></td>
</tr>
<tr>
<td>Pinewood Label Systems</td>
<td></td>
</tr>
<tr>
<td>Pinewood Label Systems Limited</td>
<td></td>
</tr>
<tr>
<td>Polar-Mohr</td>
<td></td>
</tr>
<tr>
<td>Polygraphica Equipment Ltd</td>
<td></td>
</tr>
</tbody>
</table>

ITW
Iwasaki International Inc.
KBA Latina
KURZ, LEONHARD, Stiftung & Co. KG
Kwang Dah Enterprises Co Ltd
Label Industry Consultants (& Machinery)
Link Label Machinery Co Ltd
Lombardi Converting Machinery Srl
LPP Ltd
LS-Int.com Ltd
Matik, Inc.
MGE OCC
MGI
Mida Maquinaria
Mühlbauer, Inc.

Newfoil Machines Limited
OCC Label Printing Machines
ORTHOTEC, VANAN PRECI
MACHINERY WORKS CO., LTD.
Pantec GS Systems AG
Pasquini & Kromer GmbH
PGI TECHNOLOGIES PVT. LTD
PRACMATIC Maschinenbau Ltd
Prisma Srl
Proflexo International
Rapid Machinery Company
Reel To Reel International Ltd
Sam Meccanica Srl
SANJO Semi-rotary Presses
Schobertechnologien GmbH
Starfoil Technology Netherlands bv
STOMA GmbH
Telstar Engineering Inc.
Thomson National Press Co
UEI Falcontec
UltraSource LLC
Universal Engraving, Inc.-UEI Group Company
UV Graphic Technologies Pvt. Ltd.
(formerly GTI)
VAN DEN BERGH Consulting bvba
Webtech Inc
Weldon Celloplast Limited
Werossy ASp
ZHEJIANG ZHONGTE MACHINERY

Hot stamping foils
3D AG
Active Holograms
Alpha Lasertek India Ltd
API Foils
Apple Die
ARMOR
ast Dragon International Holdings Limited
CFC International, Inc.
Crown Roll Leaf, Inc.
DaLian Fujisan Office Equipment
DIAYV SRL
Diehard Dies Pvt Ltd
Dison Tec LLC
Dragon Foils Limited
Drohmman GmbH Easycut

Etiquetas Brasil Ltda
FAES AG
Far East Yu La Industry Limited
Filmpquest
FUJIAN TAIXING SPECIAL PAPER
CO, LTD
GTechnology LTD
Hangzhou Todaytec Digital Co., Ltd.
Holosecrt Technologies
Holosilk India Ltd
IGF Europe BV (International
Graphic Films)
Infinity Foils, Inc.-UEI Group
Company
ITW Foils
Jiaozou Zhuorim Digital Material Co Ltd
Jiaxing Hean Import & Export Co., Ltd.
K Laser Technology Inc.
Kasha Ribbon
Kurz Transfer Products LP
KURZ, LEONHARD, Stiftung &
Co. KG
L C Trade
Lemmaco Kft
LEONHARD KURZ FAR EAST LTD.
Levites Ltd. Sti.
Magnum Materials Limited
Mastercorp Group
MGI
Nakai International Corp.
Newell Business Services Co., Ltd
Pack Vision BV
Pekilan Hardcopy Scotland Ltd
Ribbon Ltda
Sanyo Corporation of America
SECU TAC
Shandong Taibao Anti-
Counterfeiting Technology
Products Co., Ltd
Signet Marking Devices
STAMP FOIL SPA
Sunliky Industry Limited
Thermal Transfer Solutions Ltd
Thermo Code System
TTR Euroworks BV
Typerite
UEI Falcontec
UltraSource LLC
Univacco
Vacmet Packagings (India) Pvt Ltd
Webtech Inc
Western Decorating Technology
Xiamen Delish Automation
Equipment Co., Ltd
Xinxiang Fineray Technology Ltd
Xiamen Jiaxiang Finery Technology Co Ltd
Zhejiang Hengfeng Packing Co Ltd
Zhejiang Zhongjia Technology Co Ltd

Hot stamping-embossing Cylinders
A&M Kinzel Siebdruckmaschinen
ABBA Roller
Advanced Prepress Graphics Inc
Apple Die

Applied Laser Engineering Ltd.
Brady
Bunting Magnetics Co.
DIAYV SRL
Dixie Graphics
DMS, INC.
Eastern Engraving
Etalabradio GmbH
Felix Boettcher GmbH Co
Form-und Stanztechnik GmbH
Fullflex Flexographic Systems
General Metal Engraving
Hannecard NV
Holfeld Tool & Die Ltd
ITW
Kocher + Beck
KURZ
LARTEC – Flexible Dies
LPP Ltd
Luminate Products Corp.
Pantec GS Systems AG
Pasquini & Kromer GmbH
Platecrafters
Precise Graphic India Pvt Ltd
ProFlexo International
Rotary Technology (Guangzhou)
Co Ltd
RotoMetrics
RotoTechnix
Signet Marking Devices
Simex Group S.r.l.
Spilker GmbH
Starfoil Technology Netherlands bv
Sunliky Industry Limited
TD Wright Inc
TECHNI FORM
Technifrom
UEI Falcontec
Universal Engraving, Inc.-UEI Group Company
UV Graphic Technologies Pvt. Ltd.
(formerly GTI)
Wink Stanzwerzeuge GmbH & Co. KG

In-mold label materials
Advanced Packaging Films GmbH
Allen Plastic Industries Co Ltd
AM-KG Group
Arjobex/Polyart
Avery Dennison - Label and Packaging Materials Europe
CEZAR Ltd.
Collano Adhesives AG
Controls Engineering
COSMO FILMS LIMITED
Dynav-Tech Adhesives, Inc.
Electro Optic Werkzeugtechnik GmbH
EconoxMobil Chemical Films Asia Pacific
Filmpquest
FlexoPl Sp. z o.o
FUJIAN TAIXING SPECIAL PAPER
CO, LTD
Granwell Products / Polylith
H.S. Industries Co., Ltd
Hole-Source Corporation
Hop Industries Corp.
ICAG
Innovia Films
Inteplast Group Ltd - AmTopp
Division
Jindal Films
KK Label Co., Ltd.
KWH Plast Ltd
Leonardus S.r.l - Italy
Manuli Film Spa
MAX SPECIALITY FILMS LIMITED
(MA Subsidiary of Max Ventures
&Industries Limited)
Michelman
Minus Nine Technologies
Multi-Plastics, Inc.
Pasquato SNC
Plastic Suppliers Incorporated
POLIBAK PLASTIK FILM SANAYI
VE TICARET A.S.
Polinas Plastic
Propylplast
ROCHEUX INTERNATIONAL
Serlem
Shanghai Realtech Trading
Company Ltd
Sindiplast
Sodinor
Squid Inks AG (Ltd.)
StarTrack Europe v.o.f.
Star Film Packaging Films
Synthogra

Taghleef
Taihoup Newtech Film Co Ltd
Tamerica Products, Inc.
TerraSkin®
TESLIN Substrate by PPG Industries
Tory Plastics (America), Inc
Toyo Ink Artes NV
Trefan
Valeron
Yupo

Industry service suppliers
4Impression
A&M Kinzel Siebdruckmaschinen
Air and Water Systems, Inc.
Alltrade Recycling Equipment
Andantex USA Inc
Autopack Pte Ltd
Avery Dennison - Label and Packaging Materials Europe
B-Core Incorporation
Berkeley Machinery
CMYK UAE
Color Management Group (CMG)
Dakota Integrated Services
Datum Colour Print (Hatfield) Ltd
Dima
Drilling Tech Services/POPPS
DSE
Eaglewood Technologies/Sani-
Blast
Electro Optic Werkzeugtechnik
GmbH
EMERY WILLED SLU
EMWI Group
ENFASIS MAGAZINES

www.sinkotech.com
www.spilker.com
www.spinps.com
www.ti-films.com
<table>
<thead>
<tr>
<th>Category list</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yearbook 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category list</td>
</tr>
<tr>
<td>74</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Label applicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>3M Europe</td>
</tr>
<tr>
<td>A&amp;M Kimzel Siebdruckmaschinen</td>
</tr>
<tr>
<td>Accraply</td>
</tr>
<tr>
<td>Accu-label Inc</td>
</tr>
<tr>
<td>Achém Industry America, Inc.</td>
</tr>
<tr>
<td>Adhesivos e Papéis Especiais RR Ltda.</td>
</tr>
<tr>
<td>ADVENT</td>
</tr>
<tr>
<td>Alberta Trading S.R.O.</td>
</tr>
<tr>
<td>Alitech Srl</td>
</tr>
<tr>
<td>Altracap Hungery Kft.</td>
</tr>
<tr>
<td>Arca Etichette Spa</td>
</tr>
<tr>
<td>Atwell Self-Adhesive Labellers</td>
</tr>
<tr>
<td>Automatic Identification Systems UK Ltd</td>
</tr>
<tr>
<td>Avery Dennison</td>
</tr>
<tr>
<td>Axiom GB Ltd</td>
</tr>
<tr>
<td>Bandall International</td>
</tr>
<tr>
<td>Ben Clements and Sons, Inc./Tach-It</td>
</tr>
<tr>
<td>Bluhm</td>
</tr>
<tr>
<td>Brady</td>
</tr>
<tr>
<td>Buskro USA Ltd</td>
</tr>
<tr>
<td>CDA France</td>
</tr>
<tr>
<td>Chris Finished Machinery Co Ltd</td>
</tr>
<tr>
<td>Computype</td>
</tr>
<tr>
<td>CVC Technologies</td>
</tr>
<tr>
<td>D.P.R. Labeling, LLC</td>
</tr>
<tr>
<td>Datum Colour Print (Hatfield) Ltd</td>
</tr>
<tr>
<td>DGC</td>
</tr>
<tr>
<td>Dyanetech</td>
</tr>
<tr>
<td>Epsyns</td>
</tr>
<tr>
<td>Epley</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>Euromac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>EyeC</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
<tr>
<td>Erhardt + Leimer GmbH</td>
</tr>
<tr>
<td>Etalon Corporation</td>
</tr>
<tr>
<td>EuroMac</td>
</tr>
<tr>
<td>Eurotec Limited</td>
</tr>
<tr>
<td>Eyec</td>
</tr>
<tr>
<td>Fag Graphic Systems SA</td>
</tr>
<tr>
<td>Feni Group</td>
</tr>
<tr>
<td>Episcan</td>
</tr>
</tbody>
</table>
| Erhardt + Leime...
Label dispensers
Activa Label Industries Ltd
AEO Science Technology Co Ltd
Albertina Trading S.R.O.
ALTECH SrL
Altracpack Hungary Kft.
Atwell Self-Adhesive Labellers
Avery Dennison, Fastener & Labeling Systems
Avery Dennison, Fastener Americas
Axicon Auto ID
Axiom GB Ltd
Bandall International
Ben Clements and Sons, Inc./Tach-It
Bluhm
cab Produkttechnik GmbH & Co KG
CDM France
Computype
DPR
Datum Colour Print (Hatfield) Ltd
Dispensa-Matic Label Dispensers
Etlux
Etpack
Etiquettes Plus
Garvey
General Labels & Labeling (M) Sdn Bhd
GODEX
GROUP MBC
Impresstik Pty Ltd
K-D Hermann GmbH contact-Auszeichnungssysteme
Label-Aire A/S
Labelmate
LLT Labels
Longford International Ltd
Novation, Inc.
OKI Europe Ltd
Open Data SrL
Pinewood Label Systems Limited
Primera Technology
Print On Labels
Printech Machinery Trading Canada
PRISYM ID Limited
PRIX International Avery Dennison Fastener Ameri
Quadral Labeling Systems
Rapid Label Systems
Ravenwood Packaging Ltd
RayPress Corporation
REAJET GmbH
Reconcile Engineering Ltd.
ROFIN-BAASÄL, Inc.
Romprint Exim SrL
S-two GmbH
SSi, Inc
SATO
Screen USA
Seagull Scientific
Sew Access (Far East) Ltd
Simple Solutions and Innovations Inc.
Sinel Systems S.A.
START International
StarTrack Europe v.o.f.
Ste. PRIX AFRIQUE
Summa, Inc.
Systems Print Media Ltd
Take-a-Label, Inc.
Tamarack Products Inc
Tech-Melt Adhesives Ltd.
Techcon Printing & Packaging
Tharo Systems, Inc.
Thermal Printer Support
Thiele Technologies
Ultrasource LLC
Vacumatic Ltd
VAN DEN BERGH Consulting b.v.
Weber
Wenzhou OuHua Stationery Co Ltd
Wide Range Srl
WHR Global Americas

Label overprinters and print-apply systems
3M Singapore
Afinia Label
Albertina Trading S.R.O.
Alpha-Cure Ltd
ALTECH SrL
Altracpack Hungary Kft.
Arca Etichette Spa
Atwell Self-Adhesive Labellers
Automatic Identification Systems UK Ltd
Avery Dennison
Axiom GB Ltd
Bandall International
Bluhm
cab
Computype
DPR, Labeling, LLC
Dakota Integrated Services
De Rossi Vittoriano S.r.l.
Dili
Domino Printing Sciences
EASYLABEL Europa
Etiquette
Etiquettes Plus
Eton Corporation
Eurocoding
FFEI
FRANCIS BUEHLER AG
Grafotronic AB
GROUPE MBC
Hapa AG
Hukirmo Kimya San.
Impression Technology Europe
Injet Solutions Limited
Interactive Coding Equipment (ICE)
ITL Group
Iwatsu Electric Co Ltd
Kanematsu Corporation
KBA-MePrint AG
Label Industry Consultants ( & Machinery) Ltd
Label-Aire A/S
Labelmate
Lake Image Systems Ltd
LeeMat GmbH
LLT Labels
MECAMARC
Mimaki Europe BV
Mutoh Belgium n.v.
Newfoil Machines Limited
NITA Labeling Equipment
OKI Europe Ltd
Palmetto Imaging Technology, LLC
Paragon Labeling Systems
PCM Image-Tek
Positive ID Labeling Systems
Print On Labels
Printex SrL
PRISYM ID Limited
ProFlexo International
Prototype & Production Systems, Inc. / DICE Graphic Technologies
Reliance Label Solutions, Inc
ROOTCONTROL
Rotoflex UK
SSi, Inc
SATO
SwiftColor
Systems Print Media Ltd
Take-a-Label, Inc.
Techcon Printing & Packaging
Tharo Systems, Inc.
Thermal Transfer Solutions Ltd
Transfer Trade s.r.l.

Trojanlabel
Typerite
UltraSource LLC
UniNet
VANALINZEN BeneLux B.V.
VanDeEng BV
Weber
WHR Global Americas
Zhongtian Machinery Works Co.Ltd

Co.Ltd

Label papers
Adesivos e Papéis Especiais RR Ltda.
Alhstrom > see Munksjö
Al Husein International
Aluminium Feron GmbH & Co. KG
Appvion, Inc.
Arclad
Arjouvert
Arjowiggins
Avery Dennison
AzCoat, Inc.
Bandall International
BESEI
Blanco Labels
Boise Paper
Brady
BV Biolamtic
Cameleot Papers Inc
Cartonal Italia SpA, Release & Label Paper
Catalyst Paper
CEZAR Ltd.
Cham Paper Group
Colacril
Continental Datablabel
Contract Converting, LLC
CPD the Coated Products Division of PC
Crown Van Gelder B.V.
Dakota Integrated Services
Delfortgroup AG
Dunafin Kft.
Duralfa Label Company
Epson Europe
Etiquetas Brasil Ltda
Etiquettes Plus
Fangda Packaging Co., Ltd.
(Hebei,China)
Folien Fischer AG
Foshan Chancheng Hengyi Plastic Color Printing Factory
FUJIAN TAIXING SPECIAL PAPER CO, LTD
Gender Kirtasiye Tic. San Ltd Sti
Globus International
GODEX
Gombau Group
Granwell Products / Polythlix
Greestik Limited
GROUPE MBC
GTechnology LTD
Guangdong Guanhao High Tech Co Ltd
Guangzhou Manboral Material Technology Co Ltd
Hansol Paper Co Ltd
Hollingsworth & Vose Company
Hop Industries Corp.
Hu Zhou HengXin Label manufacture Co Ltd
Huadi Machinery Co.,Ltd
Hukirmo Kimya San.
Huzhou Kingdom Coating Industry Co.,Ltd
Idea Paper
IGF Europe NV (International Graphic Films)
Image Computer Systems
Infinity Tapes
Innovative Adhesives
Italstick Self Adhesive Materials &
<table>
<thead>
<tr>
<th>Yearbook 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Torraspapel</td>
</tr>
<tr>
<td>Torras Papier GmbH</td>
</tr>
<tr>
<td>Thai KK Industry Co Ltd</td>
</tr>
<tr>
<td>Industries Tamerica Products, Inc.</td>
</tr>
<tr>
<td>Taizhou Newtech Film Co Ltd</td>
</tr>
<tr>
<td>Stratos</td>
</tr>
<tr>
<td>Ste. PRIX AFRIQUE</td>
</tr>
<tr>
<td>Sojitz Europe Plc</td>
</tr>
<tr>
<td>Sodinor</td>
</tr>
<tr>
<td>SSI Paper</td>
</tr>
</tbody>
</table>
Offset blankets
Braden Sutphin Ink
Central Ink Corporation
Felix Boettcher GmbH Co
Fujifilm North America Corporation
Future Packer INCOREA
Heidelberger Druckmaschinen AG Komori-Champon
LARTEC – Flexible Dies marks-3tet GmbH & Co. KG
Monarch Color Corp.
Printgraph SpA
RM (Rotary) Services Ltd
Rossini

Offset presses
adphos Digital Printing GmbH
Achrome Ltd
Bobst
Codimag
Contev

Continweb
DG Press
DIP Co.
Eurogravur Limited
Futura Europe GmbH
Gallus Ferd. Rüesch AG
Goss International
Graficon Maschinenbau AG
Grafische Systeme Volker Schichke
GSM Graphic Supplies & Machinery
Gulf Commercial Group
Hamilroad Software Ltd
HC Miller Press
Heidelberger Druckmaschinen AG
Iwasaki International Inc.
IKA
Koromir-Champon
Label Industry Consultants (& Machinery) Ltd
Labelmen Machinery Co. Ltd
Link Label Machinery Co Ltd
Mat.
Mid American Rubber
Mida Maquinaria
Miyakoshi
Monotech Systems Ltd
MPS Systems B.V.

Nipletor A/S
Omet Srl
ORTHOTEC, WAN AN PRECISE MACHINERY WORKS CO. LTD.
Poligrafica Equipo Ltda
R.C. Lamps S.r.l. / VTI
Rotake Printing Machinery, S.L
Shiki MACHINE SUPPLY CORP.
Styers Equipment Company
Super Web Digital
Tangshan Wanjie Europe
TXM Meyer GmbH
Weifang Donghang Graphic Technology Inc.
WEIGANG Machinery

ZHEJIANG ZHONGTE MACHINERY
Plate mounting equipment
Agfa Graphics
Ahlig Drucktechnik
All Printing Resources
Altex Vision Equipment

Anderson & Vreeland, Inc.
ATS-Tanner Bonding Systems AG
AV Flexologic
Biefebi S.P.A
C.T. Graphic Arts
CAMIS SRL
Carl Oestemann Erben GmbH (COE)
Conversource Inc.
CT Graphic Arts
Deltapak B.V.
Distribuidora Gràfica Novaro, SA de CV.
Dixie Graphics
DuPont de Nemours (Deutschland) GmbH
E.L. Harley, Inc.
Eurogravur Limited
Felix Boettcher GmbH Co
Flexotex Hungary Ltd
Fujifilm North America Corporation
Glunz & Jensen
Gonderflex International Inc.
Graphbury Smart Solutions, LLC
INOMETA GmbH
JM Heford Ltd
Mark Andy
Mezzadri Srl
PGI TECHNOLOGIES PVT. LTD
Pitman Company
Polymount Int Bv
Precise Graphic India Pvt Ltd
Print Products
Print Systems
Proact Converting Equipment
Proflexo International
Quality Discount Press Parts & Equipment
rantec GmbH & Co. KG
Rogers
Sigrist Engineering AG
Sinkotech
ST Converting Srl.
Sys Tec Converting
Tectonic International Ltd
tesa
UV Graphic Technologies Pvt. Ltd. (formerly GTI)
Weifang Donghang Graphic Technology Inc.
Weldon Celloglazent Limited

Plates and platemaking equipment
3ES Mega Elektromekanik
Advanced Prepress Graphics Inc
Agfa Graphics
Agfa Graphics
All Printing Resources
Altex Trade Recycling Equipment
Anderson & Vreeland, Inc.
Applied Laser Engineering Ltd.
Asahi Kasei E-Materials Corporation
Asahi Photoproducts (Europe) Corporation
Badger Graphics
Bunting Magnetics Co.
C.T. Graphic Arts
Caprock Developments Inc.
Carl Oestemann Erben GmbH (COE)
ContiTech Elastomer Coatings
Cron Europe Gmbh
CRON-ECRM LLC
CT Graphic Arts
Currie Group
Dantex
Digitflex Ltd
Distribuidora Gràfica Novaro, SA de CV.
Dixie Graphics
Doughtitt Corporation
Du Pont
E. I. DuPont India Private Limited
Eastman Kodak Company
Econo Products, Inc.
Esco
Feket Elektrik Elektronik Makina
Felix Boettcher GmbH Co
Flexo Plate Digital
Flexo Wash LLC
Flexoclean Engineering
FlexoLaser GmbH
Flint Group
Focus Label Machinery Ltd
Fujifilm
Fullflex Flexographic Systems
Ge Richard
Glunz & Jensen
GretagMacbeth AG
Hamilroad Software Ltd
Heidelberger Druckmaschinen AG
HEIGHTS (UK) Limited
Heights USA Inc.
Hell Gravure Systems GmbH & Co. KG
Inglese Srl
Intec Printing Solutions
IRAC Srl
Jet Europe BV
Jet USA Corporation
JH Davenport and Sons Ltd.
JV Imaging Solutions, Inc
Kammann Machines India Pte Ltd
Kodak
Label Industry Consultants (& Machinery) Ltd
Laserflex Australia
Lucky Huaguang Graphics Co Ltd
Luminite Products Corp.
MacDermid Graphics Solutions
Marks-3tet GmbH & Co. KG
Max Daetwyler Corporation
Mekrom Engineering SA
Mitsubishi
OEC Graphics, Inc.
Olecr Corporation
Pitman Company
Platecrafters
Platingtech Beschichtung GmbH
Print Systems
Provedora Flexografica
Ralex (Filing) Ltd
RBCOR, LLC
RGK Video Systems
Ruian Jingda Printing Machinery Co Ltd
Screen Europe
Sibrex
Sinkotech
Solutions Graphiques
Southern Lamps Inc
Spring Coating Systems
ST Converting Srl.
STOMA GmbH
TCS Technologies
Thermolox
Tower Products Inc.

Yearbook 2019
Yearbook 2019

ToyoBo Co Ltd
Trinity Graphic USA Inc
Troika Systems Ltd
Vianord Engineering SAS
Xante Corporation
Xedon
Xedpe

Prepress systems
3ES Mega Elektromekanik
Agfa Graphics
All Printing Resources
Alphasonics
Anderson & Vreeland, Inc.
Athena Graphics
AV Flexologic
Bay devoted
BEL Computer Systems
C.T. Graphic Arts
Carlo Taglialue
CCS Publishing Technologies International, LLC
CHILI Publish
Color-Logic Inc
Compose System Ltd
Computer Productivity Services Inc.
Creo Seattle, Inc (formerly Scenicsoft)
Cron Europe GmbH
CRON-ECRM LLC
CT Graphic Arts
Currie Group
DALUM SOFTWARE GmbH
Dantex
Datum Colour Print (Hatfield Ltd)
DigiFlex Ltd
DIP Co.
Distribuidora Gráfica Novaro, SA de CV.
Dixie Graphics
Douthitt Corporation
DSE
Eastman Kodak Company
Econo Products, Inc.
EFI
Epson
Esko
EskoArtwork
Eyeлиц BD GmbH
Fag Graphic Systems SA
FFE1
Flexo Label Advantage Group LLC (FLAG)
Four Pees
Fujifilm
Fullflex Flexographic Systems
GE Richards
Global Graphics Software
Global Vision Inc
Gltunz & Jensen
GMC USA Corporation
GretagMacbeth AG
Hamillroad Software Products
Heidelberger Druckmaschinen AG
Hell Gravure Systems GmbH & Co. KG
Hewlett-Packard Company
Hybrid Software
Jet USA Corporation
JM Heaford Ltd
Jura JSP GmbH
JV Imaging Solutions, Inc
Kammann Machines India Pte Ltd
Kodak
Luscher Technologies AG

marks-3zet GmbH & Co. KG
Max Daetwyler Corporation
Mekrom Engineering SA
Monotech Systems Ltd
Nikka Research
One Box Vision
PAS Media
PC Industries
Perfect Proofer by Integrity Engineering
Pitman Company
Polymount Int Bv
Print Systems Provider
RBCOR, LLC
Rossini
Rti Digital
Ryback & Ryback Inc.
SaatPrint S.P.A.
Screen
Serinova Srl
Sign Tronic AG
Specialcolor
SPGPrints
STOMA GmbH
Stork Prints America, Inc.
Tech Novices
ThermoflexX
Tilia Labs Inc.
Trinity Graphic USA Inc
Valco Tech Ltd
Vianord Engineering SAS
Webtech Inc
Xante Corporation
Xante Flexo Division

Pressure-sensitive films
3M Industrial Adhesives & Tapes
3M Mexico
ACHEM Industry America, Inc.
Achilles USA
acpo, ltd
Acucote
Adesivos Ltd
Aluminium Feron GmbH & Co. KG
Appvion Inc.
Arunconvert
Arjowig/Polyart
ATP Adhesive Systems AG
Avatac Co Ltd
Avery Dennison
AzCoat, Inc.
Baker Self Adhesive Materials
BeardowAdams, Inc.
Bella Kagit
Bluhm
Brady
Brushfoil, Division of Interfilm
Holdings, Inc.
Budvalag
C.J.Arclad S.A.
CCT (Coating and Converting Technologies)
Cerium Group Ltd
Channeled Resources Group
Clariant
Clear Cast Technologies Inc.
CMC Klebeteknik GmbH
Cubon Graphic Films Inc
Culiacan Self-Adhesive Materials
Collano Adhesives AG
Contenental Datababeln
Convert-all, Inc.
COSMO FILMS LIMITED
CPO the Coated Products Division of PCI

CPPC - Decorative Products Co., Ltd.
Crown Roll Leaf, Inc.
CSAT
Cytec Engineered Materials
D&B Coating Technologies, Inc
Dilli
Discount Labels
Drytac
DURICO C&T, INC
Emax Label Solutions
EPS Materials
ExxonMobil Chemical Films Asia
Pacific
Flexcon
Flexo Label Advantage Group LLC (FLAG)
Folex AG
Folien Fischer AG
Folit
Franklin Adhesives & Polymers
Frimpeks A.S.
Full Bond Tape Corporation
GARWARE POLYESTER LTD.
Gascogne Laminates
Globus International
Gombau Group
Graphic Marking Systems
Green Bay Packaging Inc.
Greenstik
Griff Paper and Film
Guangdong Guanhao High Tech Co Ltd
H.S. Industries Co., Ltd
Hirama GmbH
Holowebes, LLC
Icap-Sira Chemicals And Polymers Spa
ICF - International Graphic Films
IGF Europe NV (International Graphic Films)
Infinity Tapes
Innovative Adhesives
Innovia Films
Intercoat
Italanstri S.p.A
Italstick Self Adhesive Materials & Coatings
Itochu Deutschland GmbH
Japan Pulp & Paper GmbH
jindal Films America
King Label Adhesive Products Co., Ltd
KK Label
Klochner PentaPlast
Koan Hao Technology Co.,Ltd
Kumar Labels
Lecco Industries Ltd
LECTA
Lentz Plastics GmbH
Leonardus S.r.l - Italy
LINTEC
Mactac
Madico Inc
Manter
Manuli Film Spa
Masterpiece Graphix
MAX SPECIALITY FILMS LIMITED
(Max of Max Ventures &Industries Limited)
MDV GmbH
Metalized Products Inc
Mementive Performance
Materials
Mondi Akrosil, LLC
Mondoplastico Spa

MSM
NASStar Inc.
National Paper Company
Oracle Paper Group Inc
PanTech Tape Co., Ltd
Paper Resources, Inc.
Perex Trading Company
Phoenix Packaging/Premier Cuts
Plastic Suppliers Incorporated
POLIBAK PLASTIK FILM SANAYI
VETICARET A.S.
Polinas
Polypak Corporation
Polyonics
Precision Coated Products Ltd
Premier Coating & Converters
Print-O-Tape Inc
PURE Labels (Elevate Packaging, Inc.
QSPAC Industries, Inc
R Tape Corporation
RayPress Corporation
Rayven, Inc
Repacorp, Inc.
Ricoh
Ritrama
ROCHEUX INTERNATIONAL
Roll Cover Italiana S.R.L
SaatPrint S.P.A.
SAELIM CO., LTD.
Sales SR
Sanyo Corporation of America
SAScoat
Scandick AB
SECUTAC
Siht GmbH
SMI Coated Products
Solar Plus Company
Solutia Singapore Pte Ltd
Spectrum Technologies, Inc.
Sindigkoff
Siongra
Tagheef
Tamerica Products, Inc.
Tamperguard
Tech-Melt Adhesives Ltd.
Technicote, Inc.
Tenza Technologies Ltd
TESUIN Substrate by PPG Industries
Tery Plastics (America), Inc
Torras Papier GmbH
Torraspaper
Treofan America, Inc.
Triton International Enterprises
UPM Raflatac
VFP GmbH & Co. KG
Wausau Coated Products, Inc
Weber
Yakana A.S.
Yenom
Yupo
Zhejiang Ouli Digital Inkjet Materials Co Ltd

Pressure-sensitive papers
Acucote
ADVENT
AERO, d.d.
Aluminium Feron GmbH & Co. KG
Ahlstrom, Inc.
Arconvert
Arjo-wiggins
ATP Adhesive Systems AG
Avatack Co Ltd
Avery Dennison - Label and Packaging Materials Europe
Avery Dennison do Brasil Ltda
Avery Dennison Label and Packaging Materials
AzCoach, Inc.
Baker Self Adhesive Materials
BeardowAdams, Inc.
Bellagi Tagit
Bluhm
Boise Paper
Budaval AG
C.J. Ardley Ltd.
Cartonai Italia SpA, Release & Label Paper
Catalyst Paper
CCT (Coating and Converting Technologies)
Cerium Group Ltd
Charm Paper Group
Channeled Resources Group
Colacril Self-Adhesive Materials
Collano Adhesives AG
CSAT
Delfortgroup AG
Dilli
Discount Labels
Dunafin Kft.
Emax Label Solutions
EPS Materials
Flexo Label Advantage Group LLC (FLAG)
Folien Fischer AG
Franklin Adhesives & Polymers
Fr impeks A.S.
Full Bond Tape Corporation
Gasconic Laminates
GBC
Globus International
Gombera Group
Green Bay
Greenstik Limited
Griff Paper and Film
Guangdong Guanhao High Tech Co. Ltd
Hansol Paper Co Ltd
Guangdong Guanhao High Tech Co., Ltd
Hera GmbH
Icep-Sira Chemicals And Polymers Ltd
Infinity Tapes
Intercoat
Italastix Self-Adhesive Materials & Coatings
Japan Pulp & Paper
King Label Adhesive Products Co., Ltd.
KK Enterprise Co., Ltd.
KK Label Co., Ltd.
Lecco Industries Ltd
LECTA
Lenzing Plastics GmbH
LINTEC Corporation
Maa Engineering B.V.
Mactac
Manter
Masterpiece Graphix
MAX International Converters Inc
MDV GmbH
Mitsubishi Hi-Tec Paper
Mondi Akrisol, LLC
MSB
NASStar Inc.
National Paper Company
Neptun Technologies GmbH
Non-Stop Label Co.
Oracle Paper Group Inc
Paper Resources, Inc.
Perez Trading Company
Phoenix Packaging/Premier Cuts
Polykote Corporation
Premier Coating & Converters
Print-O-Tape Inc
Printum UV
Proma Technologies
PURE Labels (Elevate Packaging, Inc)
QSPAC Industries, Inc
QuickLabel Systems
R Tape Corporation
RayPress Corporation
Rayven, Inc.
Repacorp, Inc.
Ricoh
Ritrama
SAELIM CO., LTD.
Sales Srl
Sappi
SAScoat
ScandStick AB
Shanghai Jinda Plastic Co., Ltd.
Shenzhen Moma Technology Co., Ltd
SMI Coated Products
Smith & MacLaurin Ltd
Solutia Singapore Pte Ltd
Spinnaaker Coating
Stic on Papers Pvt Ltd
Strata-Tac
Stratos
Tamperguard
Tech-Melt Adhesives Ltd.
Technicote, Inc.
Tenza Technologies Ltd
Thai KK Industry Co Ltd
Thimany Papers
Torras Papier GmbH
Torraspapel
Trinity Graphic USA Inc
Triton International Enterprises
UPM Raflatac
Vacmet Packagings (India) Pvt Ltd
Verso
VFP GmbH & Co. KG
Wausau
Weber
Weldon Celloplast Limited
Xpedx
Yakasan A.S.
Yenom
Zhejiang Zhongji Technology Co Ltd
Pressure-sensitive tapes
3M Mexico
ACHEM America, Inc.
acpo, ltd
Aluminium Feron GmbH & Co. KG
ATP Adhesive Systems AG
Avatack Co Ltd
BeardowAdams, Inc.
Bellagi Tagit
Ben Clements and Sons, Inc./Tach-it
Bli Esse Adesivi S.p.A
Brady
C.T. Graphic Arts
Captain JIM
CCT (Coating and Converting Technologies)
Cerium Group Ltd
Charm Paper Group
Channeled Resources Group
CMC Klebefetztechnik GmbH
Collano Adhesives AG
Converse Inc
CPO the Coated Products Division of PCI
CT Graphic Arts
Cytec Engineered Materials
Dantex
DELTA PK B.V.
Dilli
Discount Labels
Distribuidora Gráfica Novaro, SA de CV.
Edward Graphic
EPS Materials
Expert Stephan Heuser GmbH & Co. KG
Finjetchemical Industries Ltd
Flexcon
Folex AG
Forbo Bonding Systems
Franklin Adhesives & Polymers
Fujifilm North America Corporation
Full Bond Tape Corporation
GBC
Green Bay Packaging Inc.
Greenstik
Icep-Sira Chemicals And Polymers Sp
Infinity Tapes
Innovative Adhesives
Italnastri S.p.A
King Label Adhesive Products Co., Ltd.
KK Enterprise Co., Ltd.
Lecoco Industries Ltd
Lenzing Plastics GmbH
LINTEC Corporation
Lohmann
Maan Engineering B.V.
Mactac
Metagalaxy Industries Co., Ltd.
Momentum Performance Materials
Mondi
Nadco Tapes & Labels, Inc
Pantech Tape Co., Ltd
Paper Resources, Inc.
PEACE Company
Pitman Company
Polykote Corporation
Polyonics
Premier Coating & Converters
Print Products
ProFlexo International
Provedora Flexografica
QSPAC Industries, Inc
R Tape Corporation
Ritrama
Rogers BVBA
Rogers Corporation
Seal King
SECUTAC
Securit Adhesive Products
Shanghái Reallact Trading Company Ltd
Solutia Singapore Pte Ltd
Speciality Tapes LLC
STA, LLC
START International
Stic on Papers Pvt Ltd
Strata-Tac
Stratos
Taiwan Regional Association of Adhesive Tape Manufacturers
Tamperguard,
Tech-Melt Adhesives Ltd.
tesa
Thiollier
UV Graphic Technologies Pvt. Ltd.
(formerly GTI)
Wausau Coated Products, Inc.
Weldon Celloplast Limited
Yenom
Yih Hwa Enterprise (S) Pte Ltd
Radio Frequency Identification (RFID)
AM-PG Group bielomatik Leuze GmbH + Co. KG
BW Bielomatik
Comercial Arqué, S.A.
Dorey Converting Systems
Graphi Mecc srl
Huzhou Shiny Label material Co., Ltd
ITD Srl
Iwasaki International Inc.
Jakob Müller AG
King Label Adhesive Products Co., Ltd
Kirk-Rudy, Inc.
Mainplate Controls
Matik, Inc.
MELZER maschinenbau GmbH
Mühlbauer GmbH & Co. KG
Praxair Surface Technologies
Printum GmbH
Proffag
Reconcile Engineering Ltd.
Rosas GmbH
Schober technologies GmbH
Sew Access (Far East) Ltd
Shandong Taobao Anti-Counterfeiting Technology
Products Co., Ltd
StarTrack Europe v.o.f.
Sun Chemical (Germany)
Tamarack Products Inc
Voyantic Ltd
Yenom
Release liners
3M Industrial Adhesives & Tapes
AERO, d.d.
Ahlsstrom > see Munksjö
Applied Rigaku Technologies, Inc.
Avery Dennison – Label and Packaging Materials Europe
Boise Paper
Cartonai Italia SpA, Release & Label Paper
Catalyst Paper
Cham Paper Group
Channeled Resources Group
Colacril Self-Adhesive Materials
COSMO FILMS LIMITED
Coveme S.p.A
Crown Van Gelder B.V.
DT & Coating Technologies, Inc
Delfortgroup AG
Douglas Hanson Co.
Dunafin Kft.

79 | Category list

Yearbook 2019
Security materials
acpo, ltd
Acucote
Aluminium Feron GmbH & Co. KG
AM-PC Group
Angstrom Technologies Inc
ARCONVERT
Arupex/Polyart
Avatack Co Ltd
B-Core Incorporation
Budaval AG
CJ ArBad S.A.
Collano Adhesives AG
Complete Inspection Systems Inc.
Covereta Europe Limited
Drayac
Dunmore
DURICO C&T, INC
Electro Optic Werkzeugtechnik GmbH
Folen Fischer AG
Globe-Tek Corporation
Guangzhou Manborui Material Technology Co Ltd
Hanita Coatings
Holostik India Ltd
HUECK FOLEN GmbH
Huzhou Shiny Label material Co., Ltd
Infinity Tapes
King Label Adhesive Products Co., Ltd
Lana Papiers Spéciaux II
Leonardus S.r.l - Italy
MDV GmbH
Mitsubishi Hitec Paper
Mühlbauer GmbH & Co. KG
PCT Engineered Systems LLC
Premier Coating & Converters
Proofig
Seal King
SECU TAC
Seibert - PFV
Sihl GmbH
Sixtree Srl
Smart Tab Products Limited
SPGPrints
Tamperguard
TESJUN Substrate by PPG Industries
Test Supplier | Basic Industries
Teslin Substrate by PPG
Tamperguard
SPGPrints
Smart Tab Products Limited
Sixtrue Srl
Sihl GmbH
Graphotronic AB
Han Yang Industries
Iwasaki International Inc.
KBA
Kumar Labels
Lombardi Converting Machinery Srl
MAM - Machines & More
MGE OCC
Mida Maquinaria
 Miyakoshi
ORTHOTEC, WAN AN PRECISE MACHINERY WORKS CO., LTD.
Packet International Inc.
PCM Image-Tek
Precise Graphic India Pvt Ltd
ProFlexo
R.C. Lamps S.r.c./VTI
Rotatex Printing Machinery, S.L
Sam Meccanica Srl
SANJO Semi-rotary Presses
Smooth Machinery
Spartanics
Suntech & Co LLC
Tangshan Wangjie Europe
WEIGANG Machinery

Shrink/stretch films
Advanced Packaging Films GmbH
Allen Plastic Industries Co Ltd
AM-PC Group
API Foils
Athena Graphics
Avery Dennison - Label and Packaging Materials Europe
Beijing Yongshengyujia Wrapping Materials Co Ltd
Silcare Solutions
Borset America Corporation
CGS Publishing Technologies International, LLC
Controls Engineering
ExxonMobil Chemical Films Asia Pacific
Felixs USA
Four Pees
FUJIAN TAIXING SPECIAL PAPER CO, LTD
Fujifilm North America Corporation
GARWARE POLYESTER LTD.
Gilbrith
Itocchi Deutschland GmbH
Jindal Films
Karville Development LLC
Klear Plastic Ventures, LLC
Klöckner Pentaplast
Kolon USA Inc
Masterpiece Graphix
Metallized Products Inc
Newell Business Services Co., Ltd
PCT Engineered Systems LLC
PDC International Corporation
Perez Trading Company
Plastic Suppliers Incorporated
Pro Pack Group
QSPAC Industries, Inc
Repacorp, Inc.
SECU TAC
Sidaplax
Sustanium
Taglheef
Taizhou Newtech Film Co Ltd
Test Supplier | Basic
TGW International Inc.
Trefaan America, Inc.
Triton International Enterprises

Silicone release coatings
ACHEM Industry America, Inc.
Actega Radsure, Inc.
Acucote
adphos Digital Printing GmbH
Applied Rigaku Technologies, Inc.
Ashland
Bluestar Silicons
COMPONEX INC
Douglas Hanson Co.
Dow Corning
Ecology Coatings
ETI Converting Equipment
Evolnik Corporation
Fangda Packaging Co., Ltd.
(Hebei, China)
Flint Group Sweden AB
Folen Fischer AG
GARWARE POLYESTER LTD.
Genus Marketing Services (P) Ltd.
Globus International
Hannecard NV
Ichemco s.r.l.
Idea Paper
Ido On LLC
ITASA
Jermcco, LLC
KCC Corporation
Keco Coatings
Kolon USA Inc
Korea Branch of Bluestar Silicons
HK Trading Co., Ltd
KROENERT
Kunshan Formula Coating Technology Co., Ltd.
Loparex Inc
Maan Engineering B.V.
Merchant Net / Heritage Paper
Metagalaxy Industries Co., Ltd.
Metallized Products Inc
Minus Nine Technologies
Mirage Inks Ltd
Momentum Performance Materials
Nicoat
Omnova Solutions Inc.
Pantech Tape Co., Ltd
Paragon
Polinas Plastik
QSPAC Industries, Inc
Rayven, Inc
Rossaella S.r.l.
Royal Adhesives and Sealants
Saint Gobain Performance Plastics
Siliconature
Squid Ink Inc.
Spartanics
Sustanium
Taglheef
Taizhou Newtech Film Co Ltd
Test Supplier | Basic
TGW International Inc.
Trefaan America, Inc.

Sleeve systems
A-Korn Rollers, Inc.
Accraply
Allen Plastic Industries Co Ltd
ARC International
Asahi Photoproducts (Europe) AV Flexologic

Bandall International
BAT Graphics
Berkeley Machinery
Beta Industries - The Quality
Control Company
Dantex
DCM USIMECA
De Rossi Vittoriano S.r.l.
DELTAPAK B.V.
Dixie Graphics
Eastman Kodak Company
Edward Graphic
Felix Boettcher GmbH Co
Flexolaser GmbH
Flint Group
Form-und Stanztechnik GmbH
GARWARE POLYESTER LTD.
Gilbertre
Glurns & Jensen
Goss International
Harper Corporation of America
Harper Graphics GmbH
Inglese S.r.l
Itochu Deutschland GmbH
JV Imaging Solutions, Inc
Karville Development
Komori-Chamber
Lumintine Products Corp.
PDC International Corporation
Poly mount Int B.V.
POLYWEST SLEEVE SYSTEMS
ProFlexo International
Rossini
Rotometal
Ryback & Ryback Inc.
Sibress
Simec Group S.r.l.
SOA INTERNATIONAL, LLC
SPGPrints Mexico SA de CV
Stork Prints America, Inc.
Tech Sleeves
TLS Anilox GmbH
Unigracht
Vianord Engineering SAS
Xymid, LLC
Zecher GmbH

Splicing equipment
A&M Kinzel Siebdruckmaschinen
Berkeley Machinery
Brenna Srl
BST eltromat International GmbH
CMC Klebetecnik GmbH
Contiweb
CTC International, Inc.
Davis-Standard, LLC
Dover Flexo Electronics, Inc.
DSE
Erhardt + Leimer GmbH
FAES AG
Kirk-Rudy, Inc.
KTI- A Quantum Design Company
Martim Automatic Inc
Pasquato SNC
Self Adhering Products
Serame
tesa
TGW International Inc.
VAN ZALINGE Benelux B.V.

Static elimination systems
ACE DI Barbiu Davide & Figli S.r.l
Advanced Machinery
Air and Water Systems, Inc.
<table>
<thead>
<tr>
<th>Category list</th>
<th>82</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airtrim, Inc.</td>
<td>Berkeley Machinery</td>
</tr>
<tr>
<td>Boussey Control Europe</td>
<td>Brady</td>
</tr>
<tr>
<td>Corotec Corporation</td>
<td>DELTAPAK B.V.</td>
</tr>
<tr>
<td>Doyle Systems (formerly E. Doyle Co.)</td>
<td>DRAINT</td>
</tr>
<tr>
<td>Company Name</td>
<td>Category</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
</tr>
<tr>
<td>AAA Press International, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>adphos Digital Printing GmbH</td>
<td>Category list</td>
</tr>
<tr>
<td>Aetek UV Systems, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>A.I. Co UV, Inc</td>
<td>Category list</td>
</tr>
<tr>
<td>Alpha-Cure</td>
<td>Category list</td>
</tr>
<tr>
<td>American Ultraviolet</td>
<td>Category list</td>
</tr>
<tr>
<td>Amica Systems (Europe) B.V.</td>
<td>Category list</td>
</tr>
<tr>
<td>AMS SPECTRAL UV – A Baldwin Technology Company</td>
<td>Category list</td>
</tr>
<tr>
<td>Aradant</td>
<td>Category list</td>
</tr>
<tr>
<td>Araytech</td>
<td>Category list</td>
</tr>
<tr>
<td>Berkeley Machinery</td>
<td>Category list</td>
</tr>
<tr>
<td>Brewer UV Systems</td>
<td>Category list</td>
</tr>
<tr>
<td>BUSKRO USA Ltd</td>
<td>Category list</td>
</tr>
<tr>
<td>Caprock Developments Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>CGS Publishing Technologies International, LLC</td>
<td>Category list</td>
</tr>
<tr>
<td>DELTAPAK B.V.</td>
<td>Category list</td>
</tr>
<tr>
<td>Dill</td>
<td>Category list</td>
</tr>
<tr>
<td>Distribuidora Gráfica Novaro, SA de CV.</td>
<td>Category list</td>
</tr>
<tr>
<td>Dunnith Corporation</td>
<td>Category list</td>
</tr>
<tr>
<td>DPL Industri A/S</td>
<td>Category list</td>
</tr>
<tr>
<td>DPS Innovations LLC</td>
<td>Category list</td>
</tr>
<tr>
<td>DR. FISCHER Group</td>
<td>Category list</td>
</tr>
<tr>
<td>EcoNo Products, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>EIT Instrument Markets</td>
<td>Category list</td>
</tr>
<tr>
<td>Elmag SPA</td>
<td>Category list</td>
</tr>
<tr>
<td>Elettos Grafik GmbH</td>
<td>Category list</td>
</tr>
<tr>
<td>EMA UV Systems</td>
<td>Category list</td>
</tr>
<tr>
<td>EMERY WILLEED SLU</td>
<td>Category list</td>
</tr>
<tr>
<td>EMWI Group</td>
<td>Category list</td>
</tr>
<tr>
<td>Excelerate® by Lumen Dynamics</td>
<td>Category list</td>
</tr>
<tr>
<td>Excellitas Technologies Corp.</td>
<td>Category list</td>
</tr>
<tr>
<td>Feket Elektrik Elektronik Makina</td>
<td>Category list</td>
</tr>
<tr>
<td>Fusion UV Systems Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>G Technologies Srl</td>
<td>Category list</td>
</tr>
<tr>
<td>GB Flexo Equipment</td>
<td>Category list</td>
</tr>
<tr>
<td>GCC Europe BV</td>
<td>Category list</td>
</tr>
<tr>
<td>GEW (EC) Ltd</td>
<td>Category list</td>
</tr>
<tr>
<td>Glunz &amp; Jensen</td>
<td>Category list</td>
</tr>
<tr>
<td>Gold Fal Machinery</td>
<td>Category list</td>
</tr>
<tr>
<td>Grafik Equipos Para Artes Graficas S.L.</td>
<td>Category list</td>
</tr>
<tr>
<td>Hamamatsu Photonics</td>
<td>Category list</td>
</tr>
<tr>
<td>Heidelberger Druckmaschinen AG</td>
<td>Category list</td>
</tr>
<tr>
<td>Heraeus</td>
<td>Category list</td>
</tr>
<tr>
<td>Highlight UV-Technology GmbH &amp; Co. KG</td>
<td>Category list</td>
</tr>
<tr>
<td>Honle UV</td>
<td>Category list</td>
</tr>
<tr>
<td>IGT Testing Systems</td>
<td>Category list</td>
</tr>
<tr>
<td>Innovative Oberflächentecnologien GmbH</td>
<td>Category list</td>
</tr>
<tr>
<td>Integration Technology IST</td>
<td>Category list</td>
</tr>
<tr>
<td>Jelget Company Inc</td>
<td>Category list</td>
</tr>
<tr>
<td>Kirk-Rudy, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>Kompac Technologies</td>
<td>Category list</td>
</tr>
<tr>
<td>Kühnastr Strahlungstechnik GmbH</td>
<td>Category list</td>
</tr>
<tr>
<td>Lamp Tech</td>
<td>Category list</td>
</tr>
<tr>
<td>Lipi és társa Bt</td>
<td>Category list</td>
</tr>
<tr>
<td>m print morlock gmbh co. kg</td>
<td>Category list</td>
</tr>
<tr>
<td>Mark Andy</td>
<td>Category list</td>
</tr>
<tr>
<td>Miltec UV</td>
<td>Category list</td>
</tr>
<tr>
<td>Noritsu America Corporation</td>
<td>Category list</td>
</tr>
<tr>
<td>Online Energy UV Systems</td>
<td>Category list</td>
</tr>
<tr>
<td>Pagendarm BTT GmbH</td>
<td>Category list</td>
</tr>
<tr>
<td>PCT Engineered Systems LLC</td>
<td>Category list</td>
</tr>
<tr>
<td>Phidastien</td>
<td>Category list</td>
</tr>
<tr>
<td>Phidastien International</td>
<td>Category list</td>
</tr>
<tr>
<td>Phoense Technology</td>
<td>Category list</td>
</tr>
<tr>
<td>Primar</td>
<td>Category list</td>
</tr>
<tr>
<td>Prime UV Systems, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>Print Products</td>
<td>Category list</td>
</tr>
<tr>
<td>Printabeled</td>
<td>Category list</td>
</tr>
<tr>
<td>PrintConcept UV-Systeme GmbH</td>
<td>Category list</td>
</tr>
<tr>
<td>Printing Technology Services, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>Printium UV</td>
<td>Category list</td>
</tr>
<tr>
<td>ProPhotek UV Systems</td>
<td>Category list</td>
</tr>
<tr>
<td>Quartz Lamps Inc</td>
<td>Category list</td>
</tr>
<tr>
<td>Quartz Link Ltd</td>
<td>Category list</td>
</tr>
<tr>
<td>R.C. Lamps S.n.c. / VTI</td>
<td>Category list</td>
</tr>
<tr>
<td>Rotary Die Company Sp. z o.o.</td>
<td>Category list</td>
</tr>
<tr>
<td>Running Co. Ltd</td>
<td>Category list</td>
</tr>
<tr>
<td>Ruttiman Trade AG</td>
<td>Category list</td>
</tr>
<tr>
<td>Shun Zhe (Shanghai) Mechanical &amp; Electrical Technology Co Ltd</td>
<td>Category list</td>
</tr>
<tr>
<td>Sign Tronic AG</td>
<td>Category list</td>
</tr>
<tr>
<td>Southern Lamps Inc</td>
<td>Category list</td>
</tr>
<tr>
<td>SPDI</td>
<td>Category list</td>
</tr>
<tr>
<td>Starka Industries Ltd.</td>
<td>Category list</td>
</tr>
<tr>
<td>TCS Technologies</td>
<td>Category list</td>
</tr>
<tr>
<td>Tec Lighting, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>Toc Maquinas Industriales SA</td>
<td>Category list</td>
</tr>
<tr>
<td>De CV.</td>
<td>Category list</td>
</tr>
<tr>
<td>U.V. Reflection</td>
<td>Category list</td>
</tr>
<tr>
<td>UltraTight AG</td>
<td>Category list</td>
</tr>
<tr>
<td>Ushio</td>
<td>Category list</td>
</tr>
<tr>
<td>UV Graphic Technologies Pvt. Ltd.</td>
<td>Category list</td>
</tr>
<tr>
<td>(formerly GTI)</td>
<td>Category list</td>
</tr>
<tr>
<td>UV Process Supply, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>UV Ray S.r.l uv-technik.meyer gmbh</td>
<td>Category list</td>
</tr>
<tr>
<td>Uvитerno AG</td>
<td>Category list</td>
</tr>
<tr>
<td>UVT</td>
<td>Category list</td>
</tr>
<tr>
<td>XD5 Holdings, Inc.</td>
<td>Category list</td>
</tr>
<tr>
<td>XericWeb Drying Systems</td>
<td>Category list</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>List</th>
<th>Yearbook 2019</th>
</tr>
</thead>
</table>
Designed to tailor the needs of the everyday converter

Dynamic servo control with centralized programming

Tighter registration and preregistration control

More flexibility for in-line operations

Engineered precision

ENDLESS OPPORTUNITIES

Learn more about the newest class of the Mark Andy Performance Series at markandy.com

DIE-CUTTING
by Berhalter Switzerland

aluminum lids | recessed lids | polyester lids | in-mold-labels | transparent labels | paper labels

LABEL-light™
the flexible die-cutting solution

high-tech
on a low budget

• favourable tool costs
• short lead times
• flexible design
• cut & stack solution

now available for lids

Berhalter AG Switzerland | die-cutting@berhalter.com | T +41 71-727 02 00 | www.berhalter.com
A label says more than just your brand
It gives your product an identity

Packed with the latest in OKI digital LED technology, the Pro Series Label Printers take creativity and flexibility to a new level. Help products stand out from the crowd with highly bespoke, eye-catching labels in four or uniquely five colours. With minimal set-up time and training, and a minimum volume of one label. The only limit is your imagination...

To find out more visit www.oki.com/eu

Making great ideas STICK
MAXIMIZE YOUR DIE-CUTTING PERFORMANCE!

SuperCut flexible dies  Laser hardening  MCR MicroChrome  Steel-rule dies
Magnetic cylinders  PowerCut® rotary dies  Sheeter cylinders  Printing cylinders

SmartGap.
ADJUSTABLE ANVIL SYSTEM

✓ Perfect die-cutting results
Trouble-free converting of all materials, including very thin liners

✓ Maximum efficiency
Cost savings through increased tool life, shorter changeover times and less waste

✓ No limitations
Unique stability allows for flawless cutting-through and high web speeds

SmartGap. Touch
New version with digital control and many additional features for increased production efficiency.
Learn more at [www.wink.de/smartgap](http://www.wink.de/smartgap)

Wink Stanzwerkzeuge | Neuenhaus, Germany
Wink US, LLC | Charlotte (NC), USA
Wink Danmark A/S | Kastrup, Denmark
Wink South Europe s.r.l. | Gallarate (VA), Italy

You cut, we care.
MAXIMIZE YOUR DIE-CUTTING PERFORMANCE!

SuperCut flexible dies  Laser hardening  MCR MicroChrome  Steel-rule dies
Magnetic cylinders  PowerCut® rotary dies  Sheeter cylinders  Printing cylinders

THE SMART FUTURE OF ROTARY DIE-CUTTING

SmartGap. ADJUSTABLE ANVIL SYSTEM

✓ Perfect die-cutting results
Trouble-free converting of all materials, including very thin liners

✓ Maximum efficiency
Cost savings through increased tool life, shorter changeover times and less waste

✓ No limitations
Unique stability allows for flawless cutting-through and high web speeds

SmartGap. Touch
New version with digital control and many additional features for increased production efficiency.
Learn more at www.wink.de/smartgap

You cut, we care.

Wink Stanzwerkzeuge | Neuenhaus, Germany
Wink US, LLC | Charlotte (NC), USA
Wink Danmark A/S | Kastrup, Denmark
Wink South Europe S.r.l. | Gallarate (VA), Italy

Wink. You cut, we care.
The Wink SmartGap® maximizes your die-cutting efficiency and outperforms other adjustable anvil systems. Based on the well-established SmartGap® Classic version, the new Touch edition with digital control sets a new benchmark in terms of precision, handling and efficiency. Get in touch with us to become ready for the future of rotary die-cutting!

www.wink.de/smartgap
The Wink SmartGap® maximizes your die-cutting efficiency and outperforms other adjustable anvil systems. Based on the well-established SmartGap® Classic version, the new Touch edition with digital control sets a new benchmark in terms of precision, handling and efficiency. Get in touch with us to become ready for the future of rotary die-cutting!

www.wink.de/smartgap