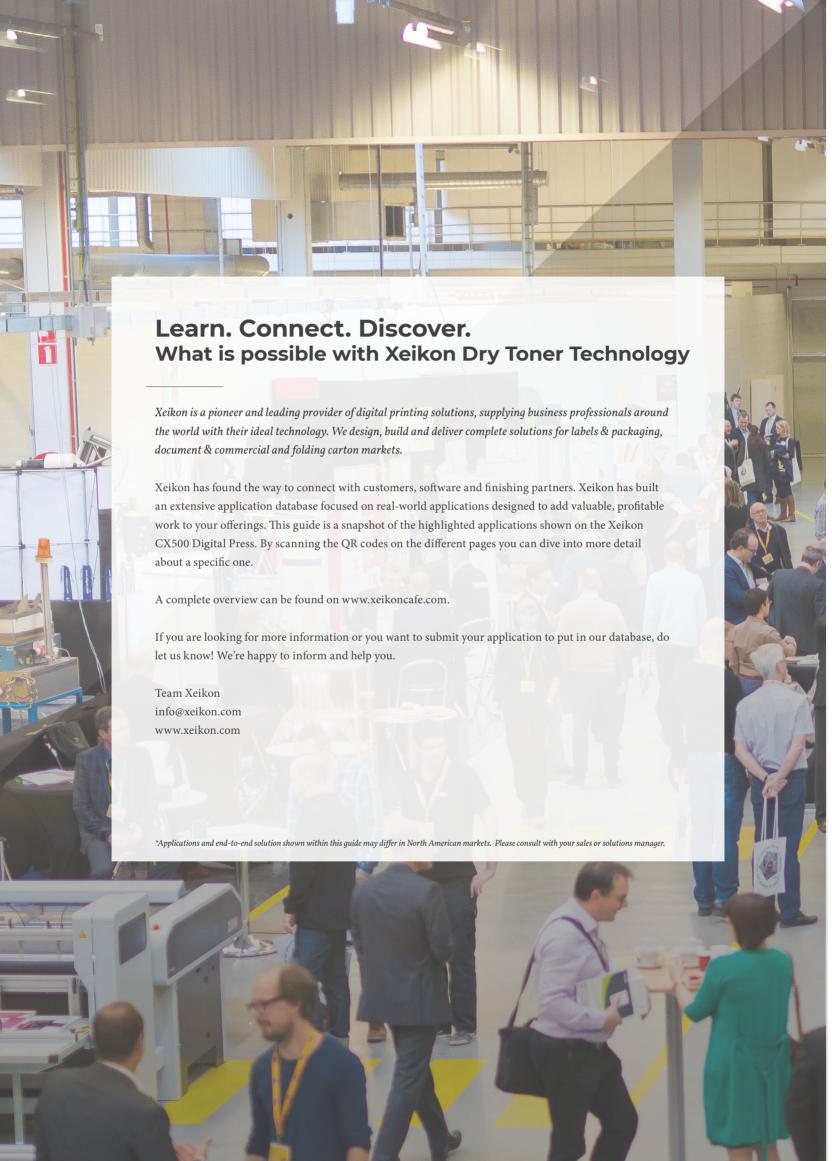


# THE POWER OF DRY TONER

A COLLECTION OF INSPIRING DIGITAL PRINT CAPABILITIES MADE POSSIBLE BY XEIKON DIGITAL DRY TONER PRESSES

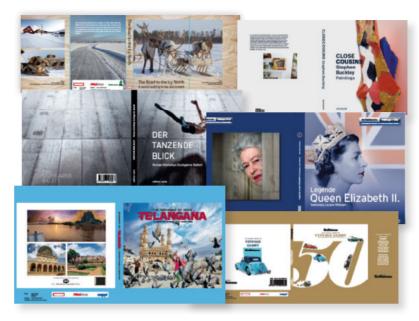


## **BOOKS & MAGAZINES**





The way a book, its cover and in some cases dust jackets are printed reveals a lot about its genre and the quality of its content. The book publishing industry differentiates in terms of substrate, size, cover, imaging quality, durability, finishing and other features. The main feature of the book is the binding that holds the book together, the signature or sheets, which are in most of the cases made out of paper.



### What is the value of digital printing?

Digital printing makes book and dust cover production profitable and flexible. Print-on-demand reduces to the smallest and still cost-effective run and therefore helps to eliminate the need for warehousing as well as cutting logistics and fulfillment costs. Increasing number of titles and electronic alternatives the need for short to medium runs with or without personalization does the rest. Furthermore digital printing with Xeikon offers:

- simplex offset quality for high coverage images
- capable to print non-standard and high value formats (e.g. coffee table books)
- suitable for a variety of high quality papers
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Verso Finch Lahnpaper	QA-I toner	Xeikon CX500 Xeikon Web Varnishing Module Xeikon Pile High stacker Acpo













## **BOOKS & MAGAZINES**





The way a book and its cover are printed reveals a lot about its genre and the quality of its content. The book publishing industry differentiates in terms of substrate, size, cover, imaging quality, durability, finishing and other features. The main feature of a keepsake book is the superb quality of the images and text containted within. The ability to produce large, grand-scale books speaks volumes to photographers, highend book publishers and to concerning commercial printers.



### What is the value of digital printing?

Digital printing makes book and dust cover production profitable and flexible. Print-on-demand reduces to the smallest and still cost-effective run and therefore helps to eliminate the need for warehousing as well as cutting logistics and fulfillment costs. Increasing number of titles and electronic alternatives the need for short to medium runs with or without personalization does the rest. Furthermore digital printing with Xeikon offers:

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Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Verso Finch Lahnpaper	Cheetah toner	Xeikon CX500





## **ECORATION**

## WALLPAPER



There is no stopping the realistic wallpaper trend and all the amazing designs and photo murals it brings along. Wallpaper that looks exactly like wood paneling, exposed brick, concrete, mosaic ... and even custom printed photo wallpaper designs, all with fantastic HD resolution. The thing consumers love the most about wallpaper these days? It allows them to regularly give their home or office a whole new look at a low cost.







### What is the value of digital printing?

The wallpaper/deco industry has been making a phenomenal comeback thanks to today's advanced digital printing technology. AND, digital printing solutions are becoming more and more accessible to startups with a limited budget.

- Produce shorter run costs-effectively: faster turnaround times
- Benefit from minimal set-up and make-ready costs: print to order, print on demand
- Eliminate inventory risks and costs: give end-of-life collections a new lease of life, create trial & startup collections
- Make no compromise on quality
- Make production flexibility profitable with 1200 dpi printing quality
- Offer customization/individualization
- Always be on trend
- Meet environmental legislation: thanks to dry toner and many other aspects of our Suite

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Felix Schoeller Lahnpaper	Cheetah toner Flint Group water based varnish	Xeikon CX500 Xeikon Web varnishing Module, Waste Extraction, Wallpaper medium rewinder (WMR500)









## **GRAPHIC ARTS**

## WRAPPING PAPER



Opening and unboxing gifts is an old habit that generally creates emotional and memorable moments for different reasons: the occasion or the gift itself. Customization is key everywhere in today's marketing. Creating customized or personalized wrapping paper requires digital production techniques.



### What is the value of digital printing?

Digital production is making it easier and more affordable to produce one-off wrapping paper for marketing purposes or web2print sales of unique one-off products. The shorter run lengths, possibilities of store or regional specific campaigns and the demand for quick turnaround underlines the advantages of digital production. Furthermore, digital printing with Xeikon offers:

- unlimited length of printing size
- · Offset printing quality at high speeds with the advantages of digital printing
- · excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800 Optional connectivity with Web-to-print systems	Verso	QA-CD CMYK	Xeikon CX500 Xeikon Web Finishing Module, Xeikon Print Medium Rewinder





## POINT OF SALE

## **BANNERS**

Banners are a class of display graphics used to inform and advertise, printed on one or both sides, mainly in full color. They can vary in terms of substrate, format, quality of printing, finishing depending on usage and location. For formats up to A3 size, toner-based cut-sheet machines are a quick and cost-effective production method, while wide format inkjet printers are used for very wide banner production. The B2 cut-sheet digital press offers a cost-efficient alternative for mid-size posters and the like.



### What is the value of digital printing?

Digital production is making it easier and more affordable to produce one-off posters and signage for marketing purposes. The shorter run lengths, possibilities of store or regional specific campaigns and the demand for quick turnaround underlines the advantages of digital production as well as the availability for larger format the B2 digital presses.

Furthermore digital printing with Xeikon offers:

- unlimited length of printing size
- duplex offset quality at high speeds with the advantages of digital printing
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Verso - 80# coated cover	Cheetah toner	Xeikon CX500





## POINT OF SALE

## **TABLE TENT CARDS**



A table tent is a convenient, self-standing promotional unit created in most cases from printed and folded cardstock or paper. Table tents are designed to be placed on tables as well as counters, desks, or any other horizontal surface and therefore the substrate provides the rigidity necessary to stand upright. Die cut slits in the base help these units interlock to form a free-standing triangular "tent" shape, or they can be joined together by some other means, such as adhesive tape or staples.

They are almost always printed in full color for maximum impact. The same artwork can be printed on both upright panels so it can be seen from either side or each panel can be printed with a different graphic with up to three printable sides.



### What is the value of digital printing?

The increased need to promote and differentiate next to more customization can be fulfilled through digital production. Increasing quality in digital color printing, possibility of short runs and shorter turnaround is making it easier and more affordable to produce this kind of promotional material for marketing purposes. Moreover due to the personalization of the table tent cards seasonal promotions or special offers per shop are possible. Furthermore digital printing with Xeikon offers:

- · optimal imposition of your job and waste reduction due to webfed technology
- · offset quality with the advantages of digital printing
- 5th color station for brand colors
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Verso - 100# Gloss Cover	QA-I CMYK Optional UV varnish	Xeikon Web Varnishing Module UV Xeikon Pile High Stacker Kompac coating equipment





## **DIRECT MAIL**



## PERSONALIZED DIRECT MAIL

A direct mail piece can vary from a simple postcard or letter inside an envelope to a more complicated individualized single-piece mailer printed in full color. Substrate, format, quality of printing, finishing can all vary depending on the defined needs. Especially the costs for postal delivery charges need to be considered which can affect in return among other things the size, format, substrate choice of the mailing. When personalized in terms of recipient, content, call-to-action, to only name a few possibilities the response rate will be higher compared to an unaddressed mailing.





### What is the value of digital printing?

Dedicated software gives digital technology the ability to easily personalize your print work and maximize the power of variable data in your marketing. In addition due to short run length, high printing-quality, quick turnaround digital production is making it easier and more affordable to produce personalized mailings.

Furthermore digital printing with Xeikon offers:

- duplex offset quality for high value direct mail pieces
- optimal imposition due to extended workflow possibilities for variable data printing
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Verso - 100# Matte text	Cheetah toner	Xeikon CX500 Xeikon Web Finishing Module Xeikon Print Medium Rewinder Large Kompac coating equipment





## POINT OF SALE

## SHELF STRIPS



Shelf strips are a singlesided flat sheet work, mainly printed in color, which is applied to the shelf itself. Produced as standard as individual strips but can also be produced on roll.



### What is the value of digital printing?

The increased need to promote and differentiate next to more customization can be fulfilled through digital production. Increasing quality in digital color print, short runs, possibilities of store or regional specific campaigns, shorter turnaround is making it easier and more affordable to produce this kind of promotional material for marketing purposes. Furthermore digital printing with Xeikon offers:

- optimal imposition of your job and waste reduction due to webfed technology
- offset quality with advantages of digital printing
- 5th color station for brand colors
- excellent deinkability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Flexcon, UPM Raflatac, Avery Dennison	Xeikon Cheetah Toner	Xeikon CX500











## HEAT TRANSFER LABELING



## INDUSTRIAL PRODUCTS

A decoration technology which enables decorating after the injection and/or blow molding process. This allows for later stage decoration compared to injection and blow mold labeling but a similar look and feel, becoming an integral part of the container. Current technologies provide a solution for small plastic container up to large size containers. The simplicity of the process enables printers but also molders to embrace this technology and bring this in-house, gaining on time to market.





### What is the value of digital printing?

The conventional process for industrial products is conventional heat transfer labels produced on either gravure, flexo or offset rotary presses. With the corresponding dimension of these decorations start-up costs are relative high while run lengths are declining. On top of that these processes need to be very tightly controlled to guarantee the proper functioning of the labels in the decoration process. Dry toner digital technology solves this issue: (1) the dry toner process ensures a chemical stable end-result hence consistent functioning on the decorator (2) no start-up costs (3) gravure image quality (4) ability to provide faster turnaround time. This all helps build new revenue streams with higher profit margins, even on very small runs of different quantities of different sized labels. Furthermore, digital printing with Xeikon offers:

- · an alternative to traditional gravure, offset or flexo printing
- a reliable print process; consistent color reproduction thanks to the closed eco system
- brand protection and track & trace functionality

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Job Optimizer, Brand Protection Features, Separator Sheets, Color Magic	Bomarko HTL 150	ICE toner CMYK + clear Primer HTL 011331 Adhesive HTL 001236	Xeikon UCoat Tronics Lake Image CDigital









## HEAT TRANSFER

## FULL DETAILS ON

## **PROMOTIONAL LABELS**

A decoration technology which enables decorating after the injection and/or blow moulding process. This allows for later stage decoration compared to injection and blow mould labeling but a similar look and feel, becoming an integral part of the container. Current technologies provide a solution for small plastic container up to large size containers. The simplicity of the process enables printer but also moulder to embrace this technology and bring this in-house, gaining on time to market.



\* Pick-up your Heat Transfer Labeled Coaster/Bottle opener @ Xeikon Booth #9344

### What is the value of digital printing?

The conventional process for industrial products is conventional heat transfer labels produced on either gravure, flexo or offset rotary presses. With the corresponding dimension of these decorations startup costs are relative high while run lengths are declining. On top of that these processes need to be very tightly controlled to guarantee the proper functioning of the labels in the decoration process. Dry toner digital technology solves this issue. (1) the dry toner process ensure a chemical stable end-result hence consistent functioning on the decorator (2) no startup costs (3) gravure image quality (4) ability to provide faster turnaround time which all helps build new revenue streams with higher profit margins, even on very small runs of different quantities of different sized labels. Furthermore digital printing with Xeikon offers:

- an alternative to traditional gravure, offset or flexo printing
- a reliable print process
- consistent color reproduction due to the closed eco system

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	CDigital 7-15 Film Adhesive	CMYK + W QA-IC Polyester film with a release coat and an adhesive for ABS Plastic	Xeikon 3500 United Silicone Heat Transfer Decorating Equipment









## IN-MOULD LABELING





In-mould labelling is the use of plastic labels during the manufacturing of containers by blow moulding (BML), injection moulding (IML), or thermoforming processes. The label serves as the integral part of the final product, which is delivered as pre-decorated item to the packaging filling line. In-mould labels are applied at high temperature with longer cycle times which comes with its challenges. Mainly BoPP films are being used which are printed, varnished and converted into a single label. These stacks are then used during the moulding process. The fact that the label is moulded inside the container provides a no label look, ensures brand integrity on a higher level and reduces complexity in the packaging line (no decoration process).



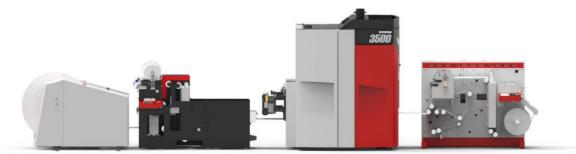


### What is the value of digital printing?

In-mould labelling is a decoration technique with relatively high start-up costs and used early in the supply chain. Digital printing allows customer sampling for test marketing, resulting in higher success rates when the products hit the consumer market. In addition, digital production offers a lower cost solution for the large sized labels which have higher start-up printing cost. Furthermore digital printing with Xeikon offers:

- undistinguishable quality from your flexo production and as such provide a complement to flexo or
- provides cross-over with offset of at least 2,100 line meter (6,889 linear ft) or >70,000 labels
- no startup costs
- no job changeover costs on the same print media
- ability to print unlimited number versions in one go

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800	Treofan EUH70	ICE toner CMYK + Clear Primer Michelman Digiprime 4453 Varnish Actega Aquaprint 150	Xeikon 3500



### **PARTNERS**



MICHELMAN TREOFAN



### **CRAFT BEER LABELS**

This type of Craft beer labels prefer the use of paper based label substrate to mimic the wet-glue labels they replace. By going from wet-glue to self-adhesive you achieve first higher reliability in the label application process and second reduce change over times and enable new range of embellishments. Certain countries require the labels to be washed off during the recycling process. Specific glues have been developed by self-adhesive label substrate manufacturers. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.





### What is the value of digital printing?

The growing trend of craft beers and more diversity in the beer market create a need for shorter runs. There are a large number of microbreweries across the globe which are bringing ever more specialized and seasonal beers to market. Digital printing offers them the ability to produce these shorter run lengths at an affordable price, and without compromising on their existing brand colors or quality since they need labels with eye-catching colors that stand out on the shelf. With digital, random variable image printing of multi-designs for premium labels, all in one run, is made possible. Furthermore, digital printing with Xeikon offers:

- a range of production solution with different capacities
- the ability to integrate the digital press in an existing workflow, reducing administration or even overhead cost
- higher cost efficiencies with run lengths of up to 4,000 linear meter (13,000 linear ft)
- · change SKU during printing without any additional printing cost

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Job optimizer, Labeltraxx	Avery Dennison ARTISAN FSC S2030-BG45WH IMP	ICE toner CMYK + Clear	Xeikon Print Medium Rewinder













## **PREMIUM WINE LABELS**

Wine labels are mainly using uncoated, natural papers enriched with color print and embellishments. The producers have such pride in their products that they only want to have the best to decorate their hard work captured in the bottle. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.



### What is the value of digital printing?

There are various reasons why wine labels would be printed digitally. Firstly, front labels hold the year of production and come in different quantities per year as the harvest varies per year. Secondly, back labels need to carry the information of the importing company which could be more than one. This all leads to shorter runs of different kind of labels which are most cost-efficiently produced digital. Furthermore a growing trend of local vineyards and much more diversity in the wine market creates the need for shorter runs. Furthermore, digital printing with Xeikon offers:

- the highest quality with the 1200 dpi print resolution
- cost efficient run-lengths of 4,000 linear meter (13,000 linear ft)
- no start-up costs
- · instant job change-over without additional substrate waste
- ability to automate the manufacturing process (order intake, job preparation...)

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Vectorizor, Separator Labels, Labeltraxx	Avery Dennison GRAPE TOUCH FSC S2047N-BG45WH IMP	ICE toner	GM Spot varnish, foil, diecut, slitting













## **HEALTH & BEAUTY LABELS**

Health & beauty labels are often to be found in humid environments, eg bathrooms. As such these labels need to be water resistant. In addition, they are often applied on squeezable containers (like a shampoo bottle) which creates an additional requirement of deformability and of course, the print on the label has to remain readable. As substrates, typically co-extruded or PE facestocks are used for this type of labels. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.





### What is the value of digital printing?

The number of different products and versions in health & beauty and toiletries are rising continuously. On top of that, retailers are sub-segmenting and pushing their own private (retail) brands in different ranges on the market (economical, high-end, family, etc.). As the consumer base in most economies isn't increasing, the run lengths per SKU is declining which creates the need to look for other printing methods that are more cost effective, such as digital. Furthermore, digital printing with Xeikon offers:

- · Cheetah (Dry toner) for offset look and feel
- high opaque white on Cheetah presses
- cost efficient run lengths up to 4,000 linear meter (13,000 linear ft)

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Xeikon Color Control, CERM, Varilane	Avery Dennison MC70 RECY- CLED FSC-S2000NG-BG30BR FSC	Cheetah toner CMYK	ABG spot varnish, hotfoil, diecut, slitting
XHINOM			













## **LOGISTICAL LABELS**

The supply chain to the consumer is continuously transforming. In the past we bought all at the local bakery – than there was a trend to supermarkets – today we shop at local farmers, local bakeries, in the supermarket but as well online. In the last case the interface with the consumer is more distant but you want to ensure a good customer experience. This example illustrates that with such variety of products being sold, shipped to 1000 destinations you can still create and maintain that customer experience. Self-adhesive labels as such (aka 'pressure sensitive labels' or PSL) are made by printing onto a laminated construction of 3 layers: a release liner (otherwise known as the backing paper, carrier or glassine), a layer or adhesive and the facestock material. The laminate is printed and then converted in a roll containing the requested number of labels per roll. A web-fed process brings a high label application speed on the packaging line and allows for more embellishing processes. In addition, its flexibility of application is enormous, either during or after the filling process and on any type of surface/container just by taking another glue.





### What is the value of digital printing?

Digital offers a range of specific benefits for this type of work. It dramatically increases efficiency by consolidating a number of different labels into one. Printing this in full color and high quality also strongly improves the customer experience, and digitizing this kind of complex workflow means less human errors are possible. In addition, these type of labels are produced just-in-time which avoids any stock of printed labels in advance and avoids labels becoming obsolete. All the data in this example, gathered from an ERP sales system is translated in million full color labels which are all variable but radiate top quality. Furthermore, digital printing with Xeikon offers:

- the ability to create a custom solution designed for your challenge. This can be software and hardware integration or specific developments.
- a variety of digital presses in terms of print technology and production capacity

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data	Avery Dennison MC FSC -	Cheetah toner	Lemorau
CERM	S2045N-BG40BR		diecut, varnish











## CARTON PACKAGING

## PAPER CUPS

Beverage cups are produced on a single or double-sided PE coated paper. After printing and potentially varnishing, the rolls are either converted in single cups or a reel of single cups. This is driven by the type of cup making machines that are being used (sheet-fed or roll-fed). The single coated paper is used for hot drinks and the double side coated for cold drinks (after serving, condense could arise on the outside surface affecting the structural strength of the cup when there would be no outside PE coating). The PE coats allows for the cup to be formed and sealed in the required shape. Conventionally these are mainly printed with web-fed flexo.





### What is the value of digital printing?

We see a trend and desire in refining food service packaging – create better image to end consumer. Customers & brands looking for new experiences are driving short run customizable production. Furthermore, digital printing with Xeikon offers:

- flexibility in terms of run lengths as it can vary from 1 to many
- fast and efficient production process especially when having many different designs of the same size, which can be consolidated into one larger print run
- food safe and migration compliant technology
- excellent deinkability & compostability to support and ensure optimized recycling process

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Separator Sheets,	Kotkamills ISLA Duo	Foodsafe toner	Xeikon Print Medium Rewinder large,
Vectorizor, HYBRID		ICE toner CMYK	Rietstack diecut





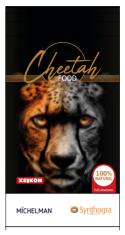


## FLEXIBLE PACKAGING



## **POUCHES**

A pouch is essentially a laminated bag which is made from several layers (plastic film, aluminum foil, and other materials). Marketers see a lot of value in this kind of packaging for a variety of reasons such as product presentation and functionality to the consumer but also sustainability: a pouch has a so-called "product-to-package" ratio of 35:1 which essentially means it can carry up to 35 times its own weight, resulting in less energy consumption to produce and transport. This is why a lot of brands are transitioning from rigid types of packaging to more flexible versions. Pouches can have a variety of different shapes depending on the needed size, end-use application and functionality. They are reasonable complex to manufacture as a pouch is a multi-layer product. Stand-up pouches are frequently called "bottom gusset" pouches. They can stand after being filled with a certain product. They are the perfect solution for "light weight" end-use applications and by "standing" they have a strong on-the-shelf presence.





### What is the value of digital printing?

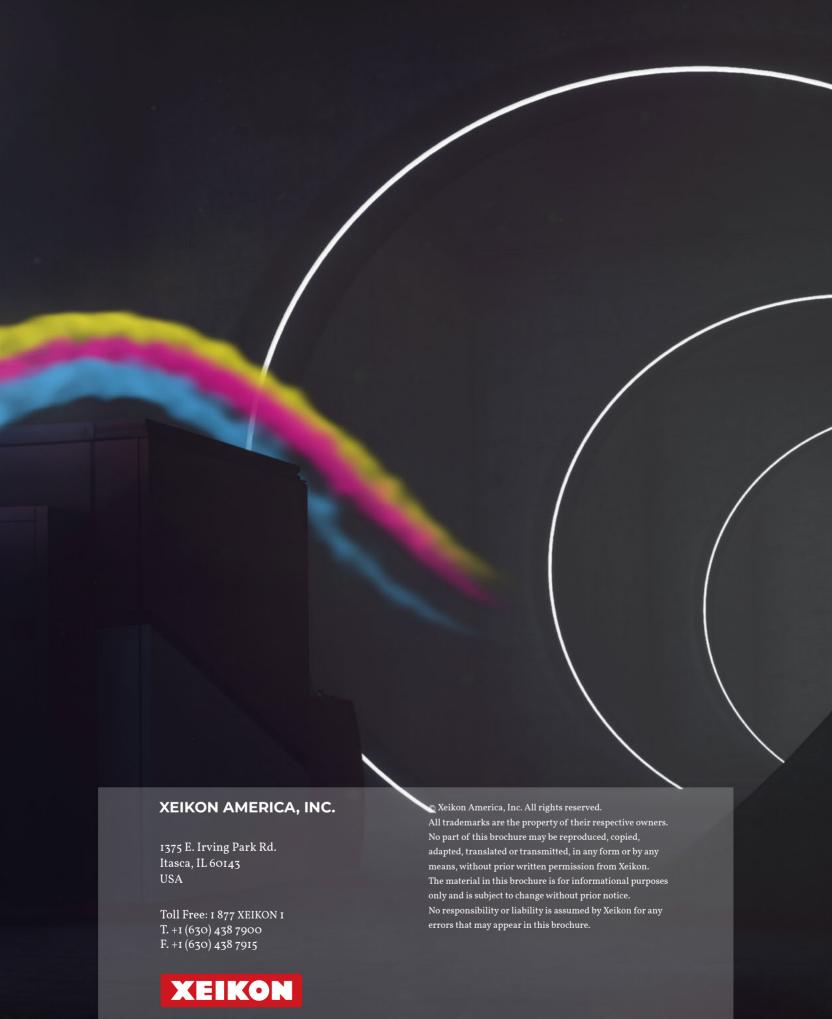
More SKU's, shorter lead-times and the rising popularity of this packaging product drive the need for digital production. It allows for JIT production, versioning and quick language adaptations. Furthermore, digital printing with Xeikon offers:

- High print quality
- a cross-over with flexo of at least 4,000 linear meter
- no start-up costs
- no job changeover costs on the same print media
- ability to print unlimited number versions (SKU's) in one go
- · ability to print single and full color variable information, integrated in the pouch

Workflow	Print Media	Consumables & tools	Equipment
Xeikon X-800, Variable Data, Separator Labels	PET/PE Synthogra	Cheetah toner CMYK+White Coating Michelman Digiprime 4453	Xeikon Web Varnishing Module, Xeikon Print Medium Rewinder D&K ADB 1/2







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