Claus Bolza-Schünemann  
President and CEO, Koenig & Bauer AG

“Touch the Future” in Düsseldorf

drupa looks forward to your visit

Only a few more weeks until drupa opens its doors once again. As in the past 65 years KBA will again be manning a large stand at the trade show. “Touch the Future” is the banner of the industry’s leading trade show this year and we will see a raft of new exhibitors and products in Düsseldorf which were previously not part of the drupa repertoire. Examples include 3D and functional printing.

On its 3,000m² (32,290ft²) stand the KBA Group will be showcasing innovative press concepts and production processes in sheetfed offset, digital and flexo printing, as well as own developments in finishing technology. When it comes to the exhibits a strong focus is on packaging, a key market for KBA. Nevertheless, visitors from the fields of commercial, publication and newspaper printing as well as special markets, such as decor, coding and marking, and security printing, are sure to find future-focused technologies and services for their business considerations. In an increasingly digitalised world presses with analogue or digital technology are not the sole factor anymore. This is why we will also present additional consulting and service offerings as part of digital transformation as well as workflow solutions for networked printing companies under the brand KBA 4.0. Due to space and cost limitations we are unable to present every development we are working on, nevertheless, it is certainly worth visiting KBA at drupa 2016.

The year 2015 brought major changes for the KBA Group and was very successful in the end. Under Fit@All we successfully implemented the biggest restructuring programme in decades, and the cost savings stemming from it are becoming noticeable. In particular I would like to point out our earnings before taxes of €29.7m and the over 20 per cent rise in order intake to some €1.2bn. At the turn of the year order backlog was almost €158m higher than the previous year. Our current solid level of capacity utilisation is expected to continue in the course of this year with new orders placed in recent months and the intake anticipated from drupa.

Despite economic issues in some key sales markets, I am confident that we will increase our Group revenue for 2016 to over €1.1bn and continue to improve our earnings. Suitable returns are also in the interest of our customers in the long term, as investments in new products and services for our numerous markets cost money.

KBA has changed significantly since the last drupa through its market-driven Group realignment. With the broadest product portfolio of all major press manufacturers, we were able to increase our footing in growth markets and continue to reduce our former dependence on banknote and publications printing considerably. Packaging now makes up some 70% of Group revenue with new presses, and media exposure now only counts for 20 years of MetalStar. Examples include 3D and functional printing.

The upcoming drupa comes at a restless time with many conflicts throughout the world and calls for action. Nevertheless, we hope that large numbers of you will attend this important trade show and are looking forward to seeing you again in Düsseldorf.
Under the banner ADD MORE KBA TO YOUR DAY the KBA Group’s 3,000m² drupa stand in hall 16 will be showcasing an array of new products for various print markets.

**Innovations in digital, flexo, offset and KBA 4.0.**

Print is a part of our daily lives in all its variations. The KBA Group contributes to this spectrum of print products with its unique, broad portfolio for numerous print markets ranging from the banknote, via cardboard, film, metal and glass packaging up to book, display, coding, magazine, commercial and newspaper printing. This is why our banner for drupa 2016 is “Add more KBA to your day”. The companies of the KBA Group will be in their usual place in hall 16 showcasing innovative products and processes in digital, flexo and offset printing. KBA addresses numerous trends and target groups with own developments for offline postpress and finishing as well as new services and workflow solutions under the brand KBA 4.0.

Live demonstrations of cutting-edge presses are a major factor for drawing large crowds to drupa. As one of the biggest exhibitors, KBA once again makes a large contribution to ensuring that the industry’s biggest trade show retains its appeal with its champions league sheetfed and web presses.

**Rapida 145: Largest sheetfed offset press with new features**

With the over 30m-long (98ft) Rapida 145-6+L FAPC ALV3 + SPS-logistics the largest and most productive sheetfed offset press at drupa will be strutting its stuff on the KBA stand. KBA-Sheetfed underscores its leading position in large format and industrial cardboard printing with this high-tech jumbo press. The six-colour press with coater, double-pile delivery and triple delivery extension is raised for packaging printing and is equipped with a new automatic pile and palette logistic system (KBA PileTronic). Some of the Rapida 145’s new features (see article on page 6) include pneumatic plate stretching (ErgoTronic Plate-Stretch), automatic quality control with QualiTronic PDF, VariDryHS+ dryer with enhanced performance, energy demand display at the console (ErgoTronic EnergyView), press operation via tablet (ErgoTronic LiveApp) and an increased maximum production speed of up to 18,000sph. In the future the Rapida 164 (format: 120 x 164 cm / 47.2 x 64.5in) will be equipped with the same new fea-

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**Sheetfed offset presses**

1. KBA Rapida 145-6+L FAPC ALV3 + SPS logistics (B0, packaging and posters)
2. KBA Rapida 106-8+L SW4 SPC ALV2 with LED-UV dryer (B1, brochures and presentation folders)
3. KBA Rapida 75 PRO-5+L ALV3 (B2, packaging, postcards and posters)

**Rotary die-cutter**

4. KBA Rapida RDC 106-3 (die-cutting of labels and packaging)

**Web digital printing**

5. KBA RotaJET 77 (commercials, books, publications, decor and packaging)

**Flexo web printing**

6. NEO XD LR (flexible packaging)

**Cold-foil finishing**

7. KBA-Rapida 105 PRO-6+L ALV2 Vinfoil Optima

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**a** Sheetfed Lounge
- Digital Transformation with KBA 4.0.
- Networked printing plants (LogoTronic, MIS etc.)
- Data-based services
- KBA VisuEnergy energy concepts

**b** Digital & Web Lounge
- Info center for KBA web presses (newspaper, commercial printing)
- Info center for inkjet web digital printing
- KBA Service web presses

**c** Special Solutions Center
- Consumables
- KBA-Metricon (udaFORMAXX)
- KBA-MetalPrint

**d** Prepress
- CtP: Kodak Magnus plate processor
The RotaJET 77 from the completely redesigned RotaJET L series is presented as an extremely flexible inkjet web press for commercial and industrial printing.

**Rapida 106: makeready world champion with LED-UV**

Known as the makeready and speed world champion with speeds of up to 20,000sph, at drupa the Rapida 106 will be displayed as a long perfector for four-back-four printing with coater, double delivery extension, simultaneous plate change and LED-UV curing. Energy-saving LED-UV printing permits the immediate post-press of print products and impresses with brilliant colours, even on uncoated stock. KBA is a trendsetter in this relatively young field. Until now long perfectors with LED-UV have been particularly popular with commercial and publication printers. The Rapida 106 at drupa is extensively automated. Its features include new TouchTronic operation with One Button Job Change and Quali-Tronic PDF before and after perfecting. It is embedded in the KBA stand’s network via LogoTronic Professional.

**Rapida 105 PRO with cold-foil finishing**

A five-colour Rapida 105 PRO with coater and the new KBA CF Optima cold-foil module for the high-quality inline finishing of folding carton with various types of cold foil will be exhibited directly next to KBA on partner Vinfoil’s stand. The new module allows the multiple use of the cold foil thus saving costs. The high-performance, medium-format press features numerous automation components and inline measuring technology, and is connected to the KBA workflow via LogoTronic Professional.

**New Rapida 75 PRO in half format**

The new Rapida 75 PRO (format 520 x 735 mm / 20.4 x 28.9in) celebrates its premiere as a five-colour version with coater at drupa. It closes the gap between the proven Rapida 75 and the highly automated Rapida 76 in terms of its maximum printing speed of up to 15,000sph (high-speed package: 16,000sph). The ErgoTronic console with TouchTronic operation and semi-automatic plate change are standard features. Automatic plate change and One Button Job Change are just two of the many extra options to choose from. The Rapida 75 PRO (see article on page 16) is available with up to ten printing units and perfecting, and will also feature LED-UV.

**RotaJET L for commercial and industrial printing**

KBA-Digital & Web showcases the redesigned RotaJET L series which has a unique flexible modular design with new native 1,200 dpi Piezo inkjet technology for printing widths from 77 to 138cm (30.3 to 54.3in) and speeds (depending on resolution) of 150m or 300rpm (492 or 984fpm). The goals when developing the RotaJET L series were optimum print quality on an array of substrates, even on coated stock, maximum flexibility for all relevant applications in the field of commercial and industrial printing, and the highest level of productivity. It is the only inkjet web press that can be upgraded on-site at a later date with regard to printing width from 77cm to 138cm, colour content, output quality and speed. The RotaJET L series can handle huge volumes with a maximum web width of 138cm (54.3in) and automatic reelstands.
KBA-Digital & Web offers the RotaJET L series in suitable configurations for commercial, book, publication and industrial printing (e.g. packaging printing). The RotaJET 77 starter-model as a 4/0 version will be presented live in Dusseldorf printing on various substrates for the packaging, publishing and target communication segments, as well as industrial applications. The advanced polymer pigment ink in connection with the new 1,200dpi inkjet head technology result in an excellent print quality even on coated offset stock.

Flexible NEO XD LR from KBA-Flexotecina
Italian subsidiary KBA-Flexotecina will be present on the KBA stand for the first time at this year’s drupa. The new NEO XD LR CI web press will be exhibited as an eight-colour press with low-migration, water-based ink for film printing. The NEO XD LR is designed for printing with solvent- and water-based ink as well as radiation-cured ink systems, such as UV-LED and EB. With up to twelve colours, print lengths from 400 to 1,200mm (15.7 to 47.2in), a maximum web width of 1,650mm (65in), maximum printing speeds of up to 500mpm (1,640fpm) and practical automation, it is suited to a raft of applications in the field of flexible packaging printing.

Rapida RDC rotary die-cutter 106
The KBA Rapida RDC 106 rotary die-cutter, developed by KBA-Sheetfed for print finishing, will also feature on the KBA stand. The rotary die-cutter which will produce packaging in connection with sheetfed offset presses on the stand is based on the Rapida platform and features a grooving/perforating, die-cutting and waste stripping unit. It can handle stock at speeds of up to 14,000sph.

New Rapida RSP 106 rotary screen press at Kolbe-Coloco
A further new offline, Rapida-based machine for especially high-quality printwork finished with coating or metal pigment inks (sales folders, brochures, special effects cards, promotional material, displays, packaging etc.) is the Rapida RSP 106 rotary screen printing press. It can be viewed by visitors at KBA pilot user Kolbe-Coloco in Versmold. KBA-Sheetfed Solutions offers a shuttle service to the company.

Workflow, energy efficiency and digital transformation
The use of digital transformation for database-based customer services and workflow solutions for networked printing plants (KBA 4.0.), a new system for enhanced energy efficiency in a printing company (KBA VisuEnergy), Sheetfed and Digital & Web Lounges with consultancy services for our customers and advanced technology for special applications from KBA-Metronic, KBA-MetalPrint and KBA-NotaSys round off KBA’s presence at drupa.

The Rapida 106 make-ready world champion will be exhibited as a highly automated perfector with future-focused LED-UV at drupa with sheetfed offset presses on the stand.

Klaus Schmidt
klaus.schmidt@kba.com
In all likelihood KBA will be the only supplier to present a high-tech large-format press again at drupa. The six-colour Rapida 145 which will be shown live in action at the trade show will feature a raft of new innovations automating print production to an even greater extent whilst making this process more effective. It is equipped with a coater, raised and embedded in automatic pile logistics for high-performance packaging printing.

The eye is instantly caught by the press’ higher printing speed. The Rapida 145 now prints at a maximum speed of 18,000sph (Rapida 164: up to 16,500sph). Its double-pile delivery also stands out. As of now this feature is available in large format and in medium format for the Rapida 106. The first presses with double-pile delivery have been in operation since the beginning of this year at a German packaging producer.

A pile each for good sheets and waste
The new double-pile delivery contributes to automating and optimising production at packaging companies with high throughput. A waste-free delivery pile which stands next to a smaller pile of waste can be sent straight to the die-cutter or laminating machine. It is no longer necessary to manually sort through a pile for waste before converting saving time and increasing productivity.

Both piles can be connected inline to substrate logistics. Waste can be ejected at full press speed, i.e. 18,000sph (Rapida 145) and 20,000sph (Rapida 106). Double-pile delivery has another benefit: It contributes to non-stop pile change at maximum press speed. Gaps between sheets are intended for extending and retracting the non-stop roller system in the delivery for OK sheets.

Production with two piles is possible both in manual and automatic mode. Among other advantages, start-up and run-up waste is ejected automatically. Further applications are planned in the future.

Automatic paper stretch compensation
Colour imposition, dampening and the number of colours influence the substrate and can lead to differences in print length. Stretching the printing plate (ErgoTronic PlateStretch) can balance the paper stretch out. The process takes place on Rapida jumbos along the axis and radius of the cylinder with a value of up to 0.2mm.

The necessary corrections are done at the ErgoTronic console in percentages. Image correction is carried out via remote adjustment. Manual intervention is not necessary. The result is improved print quality and less waste.

Perfect print quality at a glance
Another new function is inline colour control with QualiTronic ColorControl. At the console the press operator can see at a glance if the actual values of...
the colour density lie within specified tolerances. This is shown as green and red lights for every inking unit clearly on the monitor. What is more, a beep draws the printers’ attention to deviations. The operator can intervene in time to avoid waste. The values monitored can be analysed according to printing unit and press.

**Inline sheet inspection in jumbo format**

Inline sheet inspection as part of automatic quality control during printing is another new product to be unveiled at drupa in large format. QualiTronic PDF has two functions. It compares a freshly printed sheet with the contents of a PDF file from pre-press. After approving the reference sheet, production monitoring creates a virtual reference as soon as the OK sheet counter starts.

A camera with a resolution of around 300dpi detects the smallest errors up to 90µm, even at maximum press speed. The inspection parameters can be adjusted during printing. The operator can find detailed information on possible sheet errors on the ErgoTronic console’s wall-screen. Certificates and reports provide detailed information on the print quality.

QualiTronic PDF Pile View is an additional tool for subsequent error analysis following production or in the case of complaints. The precise control of the entire job eliminates waste and prevents the customer from delivering faulty sheets.

**Logistics alternative with higher automation**

As the market leader in cardboard printing technology, KBA-Sheetfed has a wealth of experience with substrate logistics. As part of PileTronic a new alternative now joins KBA’s proven and well-known logistic components. The new system boasts a low installation height and above-floor assembly. Furthermore, this type of installation does away with interfering with the hall floor or a building’s foundations. The piles are transported via LOX bands and servo motors smoothly and precisely to the press. A clear and simple user interface makes operation easier. Plug & Play components are also used. The use of standard components facilitate procuring spare parts.

The pile turner has an individually controlled programme for preparing the pile. Vibration duration, air supply, pile position or mechanical strain on the substrate can be set according to material.

**Transparent energy consumption**

The performance and the resulting energy consumption of the press and individual components, such as the dryer, can be tracked at the console immediately. LogoTronic Professional logs and stores the energy consumed according to job. VisuEnergy (see article on pages 20/21) is the KBA solution for analysing all energy consumers in a printing house. These can then serve as input variables for a company’s energy management system.
KBA 4.0. is more than just digital remote access to a press. KBA-Sheetfed has carried out remote press access since 1994, back then via a modem as part of remote maintenance and for about the last ten years faster and more direct via a secure internet connection. Intelligent encryption modules in the consoles only enable KBA service technicians and certified KBA suppliers to communicate with a large number of the some 7,000 presses on the market worldwide 24/7. A virtual tunnel protects the presses from unauthorized third parties accessing its data.

Data sharing for proactive service
For the last two years KBA-Sheetfed has been working on analysing available data automatically and using this for new services relating to the presses. In the beginning it was mainly designed for performance evaluation, but it later resulted in more and more ideas for proactive and preventative service applications. One goal is a 360° user perspective enabling sales, service and marketing to offer relevant information and added-value services on the basis of this data.

Every Rapida press features extensive control and sensor technology which captures and stores data on press activity. This includes press data, such as status and error notifications, time-stamped operating actions and other information on the day-to-day use of the press. KBA loads these log files automatically during each remote maintenance connection. Job, person and company-related data is naturally disregarded.

Monthly performance reports
Currently a growing number of KBA users participate voluntarily in a data-exchange programme. This means that their operational presses are permanently online. KBA-Service accesses these presses daily to evaluate data and in return these participants receive a monthly performance report (photo 1).

Today performance reports are an optional part of remote maintenance contracts, but this feature can also be ordered separately. The reports which are set out clearly with graphics provide information on a user’s press output, maximum and average press speeds, production availability, run lengths as well as printing, washing and job changing times. Statements regarding performance, trends and errors can be derived based on the information found in these reports. With the help of the data KBA can unlock potential and support measures

KBA Service Select uses digital transformation

Data-based business models in customer service

The fourth industrial revolution, or Industry 4.0, is on everyone’s lips. It stands for the entire digital process involved in production, purchasing, logistics and also business transactions between supplier and customer, and vice versa. Digital transformation is considerably more advanced in the print industry than in other industries. It opens up new possibilities for data-based business models and expanded service offerings for mutual benefits. KBA-Sheetfed in Radebeul has already expanded its services in its comprehensive programme “Service Select”, and intends to keep following this path. Digital transformation in service as part of the comprehensive programme KBA 4.0. will be a key topic at drupa.
for optimisation in printing firms. Milestones, such as exceeding a certain number of printed sheets, are recognised at an early stage and communicated automatically as an email notification (photo 2). Just like speedometers found in modern vehicles users receive information on expired service intervals and inspection, maintenance or update recommendations. These are aimed at maintaining a high level of press availability and constant production security.

**PressCall: Service at the touch of a button**

PressCall is the new automatic press error notification tool. Users now no longer have to call the KBA hotline. All data relevant for remote maintenance is transferred immediately and directly to KBA’s service department. This offers many advantages for users and KBA-Service, such as:

- Shorter reaction times
- Optimisation of error notifications and registering
- Clear identification of press
- Prompt analysis of press data
- Proactive and faster feedback from KBA

**Benchmarking: using optimisation potential**

The press is a key part of the process chain to the finished print product. Whether perfume bottles, pharmaceutical packaging or ad flyers, every cent saved through shorter makeready times or a higher production speed delivers economic benefits. The press manufacturer can support the optimisation process with international benchmarking. It is important to compare identical technology used for the same applications which is why KBA is currently classifying technology according the various criteria. In the future users, sales staff or even service technicians are expected to be able to retrieve possible, untapped potential transparently and anonymously at the touch of a button.

**Predictive Service: avoiding potential press downtime**

Along with proactive service, predictive maintenance is the future. This involves real big-data applications. Rapida press’ sensor and logic systems deliver high volumes of data. This is in addition to service, quality and process data from the plant. Patterns can be derived from these data streams with the help of intelligent software. Each component’s probability of default can be determined in advance. KBA offers maintenance services before this happens resulting in increased press availability.

When a motor overheats, the error notification often comes too late. The cause, e.g. a faulty bearing, can normally already be determined in advance. So, there is a chance to proactively counteract.

**Goals of data-based business models from KBA**

- High customer satisfaction
- Increased customer loyalty
- Preventive, proactive service
- Short reaction times
- Maximum press availability

Much has already become reality today. The map (photo 4) of worldwide service requests and service operations facilitates the technicians’ operational planning. Digital networking offers the customer an additional advantage by automatically alerting the closest available technician to take over the service job.
Rapida 106 in mixed operation: conventional and LED-UV

LED-UV is on everyone’s lips. This environmentally friendly and energy-saving curing technology plays a key role on KBA’s stand at drupa. Holzer Druck und Medien in Weiler in Allgäu, Germany, is a pilot user of this process. The six-colour Rapida 106 at the traditional print company is one of a few presses which can produce both conventionally and with LED-UV. Klaus Huber, managing director, and Jochen Hole, head of sales and marketing, report on their experiences with their mixed-operation press.

KBA Report: What was the reason behind your investment?

Huber: Here in Weiler in Allgäu we print products for global enterprises, such as Zeiss, Blaser, Kuka, Geberit and Liebherr. This means we have to be at the technological forefront and a trendsetter. With LED-UV we offer our customers services that not everyone offers. As we are unable to use a purely LED-UV press to its full capacity due to the size of our company, we opted for a mixed-operation press.

KBA Report: Which products demand LED curing?

Huber: Along with uncoated stock and materials, it is mainly dark coloured substrates, such as plastic and film. We have expanded our product portfolio thanks to LED-UV. We also produce products now for clients in the high-end tourism industry. Neutral odours play a decisive role in this process. Picture a small tourist information office with piles of boxes filled with print products. The working environment improves greatly if these products are odour-free.

Hole: A lot of print products buyers do not have all the information on the benefits that LED-UV brings. We inform them on matters regarding substrates, look and feel and finishing, and offer them advice. We have a Lookbook containing comparisons between conventional and UV, with and without finishing as well as a wide range of stock. Our competent sales team does outstanding work which extends to tips for entering data. We do a lot internally so that our customers get the results they want.

LED-UV is a complex process. Managing director Klaus Huber shows his company’s Lookbook with printwork comparing conventional and UV.

Holzer Druck und Medien

1887: Takeover of a small printshop by Gebhard Holzer
1902: Fridolin Holzer takes over as manager, expansion into newspaper publishing
1939: Dr Wolfgang Holzer expands newspaper and commercial business
1980: Change from lead to photosetting
1981: Dr Elmar Holzer takes over the growing company from his father
2000-2007: Expansion of the printing plant building (three times more production space)
2015: Klaus Huber takes over as manager

Today: A full-service printing plant with over 2,500m² (26,900ft²) production space; 70 staff; €10.5m ($11.9m) sales; operates: an eight-colour Rapida 106 for 4/4 production and a six-colour Rapida 106 with coater – both with cutting-edge automation systems, such as Drive-Tronic SPC and FlyingJobChange (eight-colour).

Holzer has worked with sheetfed offset technology from KBA for 25 years.
KBA Report: What experience have you gathered with the LED-UV?

Hole: Positive through and through. We can do a lot more especially when it comes to printing on film. Interesting effects have been created when printing on black coloured paper. We first print an opaque white and then the colour graphics on top. The print quality is much sharper on uncoated stock.

Huber: Fast post-press and delivery are also huge advantages. We gain at least two days when using offset materials. What is more, we have become a lot quicker with all UV finishing processes. We do these in-house which saves the time needed for delivery to a finisher. Added value has increased almost without any additional investments.

KBA Report: Do your customers notice the increased colour density, higher contrast images etc.?

Hole: We point these out during all sales talks, it has to be actively sold though.

Huber: We had a slow start. In the beginning only ten per cent of jobs were produced with LED-UV on our Rapida. Now it’s more than 20 and it won’t be long until 30 per cent of our print jobs will be processed with LED-UV.

KBA Report: Would you invest in LED-UV again?

Huber: Yes, of course. The market has not yet been fully exploited. We have a real chance of winning over new customers. The Rapida has created a unique selling point for us within a radius of 100km. We can do something, that

**Benefits of LED-UV technology according to Holzer Druck und Medien**

1. Significant improvement in print quality of uncoated stock (no penetration in substrate, drying on the surface)
2. Gloss and matt coating in UV – spot-coating possible
3. Hybrid coating, matt and gloss inline in one pass with printing
4. Printability of dark coloured substrates (opaque white base, all other colours on top wet-on-dry)
5. Printability of plastic and film (curing process is complete when the sheet leaves the machine)
6. Sustainable as less energy is needed for the drying process
7. Fewer ozone emissions as in conventional UV printing
8. Immediate post-press as the sheets are dry in the delivery
9. No unpleasant smell with uncoated paper
10. No powder necessary
11. No protective varnish needed, the haptic qualities of the substrate can be seen
12. Print on uncoated stock; reduction in or elimination of fold breaks or cracks
13. Final print result when fine-tuning at the press, no additional colour changes through penetrating drying effects
14. Reduction in CO₂ emissions by up to 60 per cent compared to production with dispersion coating

Many things haven’t arrived in the industry yet, but LED-UV is accepted quickly when we talk about it. We are ready to develop products together with our customers - from the initial idea to implementation.

Huber: We had a slow start. In the beginning only ten per cent of jobs were produced with LED-UV on our Rapida. Now it’s more than 20 and it won’t be long until 30 per cent of our print jobs will be processed with LED-UV.

KBA Report: This means constant system changeovers. How do your staff and press handle this?

Huber: Our press operators find it interesting, but it is a challenge. Along with learning-by-doing, the work requires a lot of initiative. We really value the job our operators do and it would be unthinkable to employ semi-skilled workers in our case. The same is true of the technology. As a pilot installation press for mixed operation the challenge was to test suitable substrate combinations. Not only with regard to consumables, but also with a view to test suitable roller materials. We have gathered experience in this area which KBA profits from when it comes to similar press installations.

KBA Report: Would you invest in LED-UV again?

Huber: Yes, of course. The market has not yet been fully exploited. We have a real chance of winning over new customers. The Rapida has created a unique selling point for us within a radius of 100km. We can do something, that
others can’t. Other print firms in the area use our services from time to time.

**KBA Report:** You also have another eight-colour Rapida 106 perfector in operation. What do you use this press for?

**Huber:** This press is outstanding, it suits our needs perfectly. It runs incredibly fast thanks to its raft of automation modules extending to central ink supply. Sometimes it’s harder to fill than our six-colour press as competition is a lot tougher when it comes to our 4/4-colour products. We haven’t used Flying JobChange that often. This feature is more interesting for publishers as well as day-to-day small print runs. However, simultaneous plate change is a must on both Rapidas.

**KBA Report:** What effects does this all have on makeready times?

**Huber:** They have been reduced by 50 per cent. SPC plate change in connection with Plate Ident, parallel makeready processes, inline colour control and central ink supply in particular have led to this reduction.

**KBA Report:** What do you value about KBA?

**Hole:** The Rapidas have stable units and feature the finest technology. They are more robust than others that I’ve worked with in the past. Even after years in operation they still produce good quality products.

**Huber:** Our cooperative partnership is at the top of my list. KBA has flat hierarchies meaning we reach the correct contact person quickly. We can always reach managing director Ralf Sammeck immediately. This is excellent and is certainly not usual at every company in the supply industry.

**KBA Report:** Everyone’s talking about the media shift: What impact has it had on your company?

**Huber:** It is a sword of Damocles hanging over us. I assume that print will stay around and will also experience a kind of renaissance. Print run lengths are falling, but there are new applications, such as personalisation. We process such jobs in-house with our digital machines. From a sales point of view we have been in a stable situation for years. Nevertheless, we generate it with a lot more jobs than in the past. An end to the downward spiral can only be found by added-value, such as that offered with our new technology.

**KBA Report:** Future prospects...

**Huber:** We are very well positioned from a technical point of view and have a lot to offer Germany, Austria and Switzerland that others can’t. We are expanding in the LED market and other than that we are interested to see what drupa will bring. Especially seeing as we are looking to invest again in two years’ time.

**KBA Report:** Mr Huber, Mr Hole thank you for this pleasant and informative talk.

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**Left:** Michael Volkert remains cool even when the press runs at top speed thanks to Quali-Tronic ColorControl. **Right:** Florian Fink prepares the printing plates for the next job.
LED-UV is the present and future for Oberdruck

An eight-colour Rapida 106 perfector for 4/4 printing with LED-UV curing has been in operation at Austrian printing firm Oberdruck in Lienz since summer 2015. Senior boss Hans Oberbichler and production manager Michael Platter took a closer look at the differences between conventional, HR- and LED-UV curing during an open house at the KBA plant in Radebeul before investing and came to the conclusion that: “LED-UV is the future!”

With 20 employees in pre-press, printing and post-press, Oberdruck mainly serves the market in East Tyrol. Along with a high level of flexibility, the company places great importance on production security. Several periodicals, including the Osttiroler Bote which is produced in sheetfed offset in very narrow time frame with a circulation of some 17,000 96 to 112-page copies, guarantee a fundamental level of capacity utilisation. The company works closely with local agencies and graphic artists to produce challenging commercial printwork.

Strong with uncoated stock
Along with eight printing units with perfecting after the fourth unit, the new Rapida 106 also has a coater for dispersion or UV coating, double-delivery extension and automatic plate changing. Its highlight is LED-UV technology which opens up new possibilities for the company. Hans Oberbichler not only underlines the faster lead times delivered by the press but also focuses on the topic of quality, especially in connection with uncoated stock: “Creative minds recognise the role that haptic qualities play in communication, this is in contrast to the way electronic media conveys emotions.”

LED-UV technology retains the look and feel of uncoated stock. This is in addition to high colour brilliancy and crisp details even with heavy solids. The fold is not inclined to crack given elastic polymerisation even with high ink coverage. The efficiency of the folder and gang-stitcher can be increased substantially as powder is almost dispensed with completely cutting cleaning efforts during printing and in post-press. Silvia Oberbichler: “If you take these and other factors into account the higher costs for LED-UV ink are no longer an issue.”

Fewer problems than with other UV technology
The same is true when it comes to the LED dryer which is slightly more expensive. Its service life stands at around 20,000 hours, whereby conventional UV dryers only manage around 2,000 operating hours. Further pros of LED dryers include lower energy consumption, they are ready for immediate operation and do not produce any waste heat. Problems that arise when using other UV processes such as swelling of blankets, ink misting or dissolving of the coloured film in the ink duct and difficulties with temperature-sensitive substrates are avoided. What is more, LED-UV technology is much more flexible when it comes to positioning the dryers, Oberdruck positions its dryer before perfecting and after the coater.

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Van Genechten Packaging in Poland grows with cutting-edge technology

After two large-format Rapidas were installed at Polish manufacturing company Van Genechten Packaging, the company fired up a new medium-format Rapida 106 in summer 2015. It is the third press in six years that KBA-Sheetfed has delivered to the printing plant in Chelmek, near Krakow.

It joins a Rapida 145 and a Rapida 142 which have been in operation there for some time. They are used for large-format board packaging. The new medium-format press now permits the production of highly finished premium packaging with the use of UV ink, finishing with interesting coating combinations and printing on non-absorbent substrates, such as foil.

The Polish printshop has belonged to Van Genechten Packaging since 1998 and employs 190 staff. The packaging products produced here can be found all over the world. Robert Kaczmarek, director of VG Polska: “80 per cent of our customers are international firms. We mainly produce packaging for food, but also for personal hygiene products and the cosmetic industry.”

Service portfolio expansion
Along with qualified staff, a cutting-edge press fleet is necessary in order to fully support the company’s customers worldwide. It is made up of many post-press and finishing machines, however, technology from KBA has long formed the basis of its printing activities. The first jumbo Rapida, a six-colour Rapida 142, went live in 2009. It was joined three years later by a Rapida 145 with seven inking units and a high-speed package. The printing company’s most recent investment is a B1 press. The firm chose a KBA Rapida once again. “It is said the first press is bought by the management board, but the second and third press depends more on the solid cooperation and service received. This was the case with us,” Robert Kaczmarek remembers.

Although decisions to invest were coordinated by the Belgian headquarters of Van Genechten Packaging, in-depth discussions took place in advance with local subsidiaries who use the equipment. This was no different for VG Polska. “We also had a say with regard to the presses selected and their configuration. Along with maximum automation, in the past we also placed great importance on options that enabled us to produce those products that we were not able to produce before technologically. Furthermore, the press had to be easy to operate. The technical solutions found in the Rapida 106 make it possible for us to expand our service portfolio and handle more challenging jobs from customers who expect a larger variety of production capabilities,” says Robert Kaczmarek.

Seven printing units and twin coaters
The new Rapida 106 has seven printing units and twin coaters. It features numer-
ous measuring systems for quality control as well as extensive automation kit. “We have a high-end press which is also easy to operate,” explains the director of the plant in Chelmek. “What is more, the press is energy efficient which has a positive effect on our production costs. Service is also key. We are convinced that KBA looks after us better than other suppliers. According to the experience collected throughout our entire packaging group, KBA is a reliable business partner among our strategic suppliers.”

Jan Korenc, managing director of KBA CEE adds: “We are proud that such a renowned packaging producer as Van Genechten Packaging trusted once again in the solutions delivered by KBA. Van Genechten Packaging operates 20 presses worldwide that were manufactured in our facility in Radebeul. We are pleased that the plant in Chelmek is able to significantly enhance production capabilities with the new Rapida 106, especially with UV printing and finishing. Just like the two existing presses, the latest investment also contributes to the growth curve of VG Polska.”

Multiple awards
“As one of the printing companies with the highest growth rate in Poland we have been listed in the “Forbes Diamonds List” several times and have received the Business Gazelle, a renowned prize awarded by the Polish economic newspaper Puls Biznesu. Longstanding business partnerships, such as that with KBA, increase our development even more,” says Robert Kaczmarek. In addition, VG Polska is a producer and co-producer of a raft of award-winning packaging. Packaging produced in Chelmek for McDonalds won a Worldstar award from the World Packaging Organisation.

With a total of eleven production sites, high-quality carton packaging specialist Van Genechten Packaging is an international group which also operates an extrusion factory. Its Belgian parent company was founded in 1834 and stands for solidarity, a high level of customer orientation and innovation. Supply chain management including optimum logistical efficiency is a part of its packaging approach. Projects are processed in close proximity to the customers as the firm’s production plants are scattered throughout Europe. Furthermore, group-wide networking delivers benefits when it comes to handling international projects. The company’s sustainable philosophy based on the principles of corporate social responsibility comprises topics such as conserving resources and energy-efficient production.

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KBA expands half-format offerings with the new Rapida 75 PRO

With the unveiling of the Rapida 75 PRO at drupa, KBA showcases an advancement of the Rapida 75 in half format. In terms of all technologically relevant subassemblies this new press relies on the sophisticated mechanics of the Rapida 75 and closes the gap to the highly automated Rapida 76. The new press features the same hard- and software solutions as medium- and large-format Rapidas. The Rapida 75 PRO thus offers improved user-friendliness and a raft of extra features.

Leap in development of hard- and software and increased user-friendliness

The Rapida 75 PRO distinguishes itself from other presses optically through its design. Its control panels, cover outlines and colours are similar to those of the Rapida 105 and Rapida 106. The ErgoTronic console is a standard feature equipped with the TouchTronic graphical user interface, like KBA medium- and large-format presses. Job management (console) and press operation (delivery screen) are no longer separate.

New: TouchTronic GUI

The Rapida 75 PRO is operated via touchscreen. Its 16:9 monitor now displays more information at a glance. The clear, intuitive operating concept allows all of the press’ functions to be controlled with a maximum of two touches of a button. A daylight lighting system with a 5,000K standard light results in optimum measuring table illumination. The sheet-inspection desk is equipped with desk angle adjustment to meet the needs of the operators. It has a USB port for fast job data exchange with pre-press.

The optional wall screen is a new feature for the Rapida 75 PRO. It displays all press settings. Via the additional monitor the press operator can see live pictures of the sheet travel and even monitor print quality with QualiTronic ColorControl.

Makeready times can be cut by up to 50 per cent with One Button Job Change. All pre-selected makeready processes are carried out at the touch of a button in an optimised sequence according to time. Job and press settings can be loaded at the ErgoTronic console during production. This programme for job changing makes operating the press easier and reduces makeready times. Intuitive graphical user interfaces contribute to fast and user-friendly job preparation. Here are its most important functions at a glance:

- Loading of CIP3 data via CIPLink X or LogoTronic Professional
- Storing press parameters for repeat jobs
- Complete production data acquisition via LogoTronic Professional
- Remote register control
- Control of peripherals
- Maintenance indicator / printing of maintenance lists
- Creation and printing of pile dockets (via network printer)
- Display of preview images

New: More performance

Moreover, the Rapida 75 PRO has different performance data. Its standard print format has grown to 520 x 735mm (20.4 x 28.9in) (previously 510 x 735 mm / 20 x 28.9in). Presses with up to eight inking units and coater produce at speeds of up to 15,000sph (previously 13,000sph) as standard. The high-speed package with speeds of up to 16,000sph remains the same, as do the special formats which deliver up to six pages in typical catalogue or US measurements.
The Rapida 75 PRO also offers much more flexibility when it comes to the press configurations available. The options extend up to ten-colour presses with an additional coater. Perfecting and coaters are also possible, e.g. for four-over-four or five-over-five production. They run at maximum speeds of up to 13,000sph. Double-coater presses are also available as an option.

**New: ColorTronic ink ducts**
The ColorTronic ink ducts found in the Rapida 75 PRO are identical to those found in medium- and large-format Rapi das. The rigid, ceramic-coated ink duct is speed-compensated and transfers the ink uniformly. Just like the other Rapi das, the ink keys are 30mm wide (1.18in) and there are now 25 keys.

Idle inking units can be uncoupled at the ErgoTronic console as an option. This means that the protective paste which prevents the rollers from running dry is not necessary and the inking unit does not need to be cleaned when used again. Distribution adjustment can now also take place at the console.

**New: More automation for plate changing**
Semi-automatic plate changing is now a standard feature of the Rapida 75 PRO. Plate changing times for this model are around one minute per printing unit. The operator loads and unloads plates without any tools. Plate tensioning and gripping is done automatically.

An optional feature of the Rapida 75 PRO is automatic plate changing. After placing the plates in the plate-loading cartridges, everything happens automatically: the old plates are released and ejected, and the new ones are inserted and tensioned. Automatic plate changing relieves the operating crew of manual tasks and short ens makeready times further.

Many well-known features can be found in the new press. These include a wide range of drying systems ranging from the energy-saving VariDryBLUE dryers up to HR-UV and LED-UV curing systems for the immediate finishing of printed sheets. The key economical features of the Rapida 75 have also been adopted by the Rapida 75 PRO in terms of the space and energy needed. It requires a lot less space than other presses in its format class and operates using a lot less energy.
KBA Service Complete offers first insights into full closed-loop solutions at drupa

Along with utilising digital transformation for data-based business models in customer service (see also article on page 8), KBA 4.0. also encompasses the idea of a networked print factory, in which products, presses and tools continuously exchange information via wireless chips and sensors. Presses configure themselves on the basis of the supplied data, change automatically from one job to the next, and relieve the operator of routine tasks. KBA Service Complete will be presenting a number of examples in the Sheetfed Service Innovation Lounge on our drupa stand.

Where status and action data from the shop floor is automatically made available to the top-floor management information system (MIS) in real time, this achieves the transparency which is necessary for company-wide planning and control, as well as fast and flexible reaction to customer demands.

**Networking according to needs**
KBA has offered corresponding networking solutions for many years. The production planning and control software LogoTronic Professional is the key to a networked print factory. It serves as the link between MIS, prepress, print and postpress. Job, material, scheduling and PPF data is acquired from the MIS and prepress, and provided to the presses in the form of job lists and presetting data. LogoTronic Professional subsequently returns real-time production and resource data to the MIS. Production becomes transparent and costs are kept under control – the desired 360° management perspective is achieved.

**360° overview of company activities**
This goal calls for purposeful networking of the relevant business processes with both the production centres and the measuring and control systems on the presses. To this end, all pertinent data is shared between the departments responsible for sales, job preparation, planning, production, operational management and logistics, and are even integrated with web-to-print systems, where appropriate. The real-time communication within a full closed-loop solution ensures that complete information is available at all process steps along the value creation chain – structured, analysed and across the whole company. Management is provided with a 360° overview of all company activities.

**With Complete Optimus Cloud Mobile, sales and management have all production details at their fingertips, whether out on the road or while visiting a customer**

**MIS solutions: Intelligent motor for all business processes**
KBA-Sheetfed offers a range of high-performance MIS solutions as the heart for all workflow implementations. At the upcoming drupa, KBA will now be presenting a new entry-level solution Complete PrintX. This is a compact system tailored precisely to the needs of commercial printers and can be installed with a minimised investment outlay. Its scope includes all modules of a modern MIS, such as job and master data management, price calculations, planning, cost accounting, inventory control and a link to financial accounting.

The high-end solution Complete Optimus Dash expands these capabilities with unique process- and substrate-independent functionalities, right up to online solutions for print providers and their customers. Complete Optimus...
Dash is a global solution for packaging, commercial and digital printers, and can be expanded step-by-step in line with individual needs. Powerful and flexible templates require only a minimum of keyboard inputs and offer a host of additional functions, e.g. time management, inventory control or order and invoice processing, as well as in-depth reporting options, including a business intelligence tool for the visualisation of lean management KPIs. The add-on module Complete Cloud W2P, furthermore, enables an intuitive approach geared to the simplification and automation of print product purchasing. With Complete Cloud Mobile, quotations can be issued, orders can be accepted and customer-specific information can be called up quickly and precisely.

### Open for individual workflow solutions

With the Complete Production Workflow, KBA-Sheetfed offers an integrated one-stop solution: Everything from a single partner, tailored to the specific needs of the user. Depending on individual requirements, it is possible to implement complete networking of the whole print company, right down to routing of the last network cable. This is accomplished either in cooperation with KBA technology partners (Kodak, Optimus, Printplus) or as a manufacturer-neutral project. Many users already appreciate this open approach, as it permits the integration of existing products and software solutions via open interfaces.

Chris Waschke

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Efficient energy management with KBA VisuEnergy

Why opt for an energy management system? On the one hand printing firms profit from avoiding expensive peak loads and the reimbursement of electricity tax and on the other hand the environment profits from the savings in resources which in turn is good for the respective printing company’s image. KBA VisuEnergy measures energy consumption, recognises ‘energy guzzlers’, delivers considerable savings and helps printing firms access tax benefits and government subsidies. KBA-Sheetfed’s service arm offers and installs the system. KBA will present the advantages and possibilities of VisuEnergy in the Sheetfed Lounge at drupa.

Energy management is an ongoing improvement process with the goal of constantly optimising energy consumption and sustainably reducing energy costs by using the energy available more effectively. Integrating the VisuEnergy measuring system into the electric circuit paired with qualified consulting delivers:

- Recognition of energy consumers and defining measures for saving energy and prevention of peaks. Possibly also by replacing high-energy systems with energy-saving technology
- Transparency of consumption situation within a company by displaying at least 90% of the primary consumers
- Employee training and increasing awareness of reducing energy consumption
- A direct comparison of productivity with energy consumption through company figures
- Demand-driven supply through energy suppliers with adjusted capacities.

Tax incentives for investments to increase energy efficiency have been available in West Germany already since the 1980s. Tighter environmental regulations for the manufacturing industry in 2012/13 have made documentation regarding energy consumed more interesting to printing companies from an economical point of view. The energy management system (EnMS) in line with DIN16247-1 was therefore introduced back then for a transitional period.

Until 2012 anyone holding an electricity tax permit from the central customs office automatically had 1 cent per kWh consumed deducted from their electricity bill. 1 cent may not seem like that much but a mid-sized printing firm with an annual energy consumption of 1,000,000kWh would save €10,000 (approx. $11,200).

The electricity tax permit became void in 2012 and this tax then had to be paid in full. A reimbursement of 2.05 cents per kWh could be applied for the following year at the central customs office based on the invoice. As the refund claim rose to 2.05 cents, annual reimbursement came to a possible €20,500 ($23,300) for 1,000,000kWh. Many printing companies were unaware of this change and it was thus not used to a great extent.

Since the introduction of EnMS (ISO50001) and SpaEfV energy audit (DIN 16247-1) in 2013 firms have had to prove to the customs office that energy efficiency measures were indeed carried out. The scope of the energy efficiency measures depends on a company’s annual energy consumption. This is why sensible measures also depend on the company in question. With this in mind, many companies have trained energy managers. ISO and DIN demand proof of a minimum of 90 per cent of primary energies used in the company. Along with the amount of electricity consumed, the respective printing firm also has to break down its consumption into natural gas, liquid gas, fuel oil, district heating and motor vehicle fleet usage, demonstrate potential for savings and provide proof of measures to increase efficiency.

New laws since 2016

The transitional period of EnMS in accordance with ISO50001 and SpaEfV ended at the turn of the year 2015/2016. All of the above-mentioned measures had to have been introduced by then to continue to apply for electricity tax reimbursement at customs and take advantage of the tax concessions possible.

Depending on company size, the following procedures apply when implementing this in practice:

1. Installing meters and manual recording of primary energy consumption:
   Meter lists have to be made by hand, transferred to Excel tables and given to an auditor, which all takes time. This measure requires manpower which might be taken from other places or results in higher personnel costs. At the same time effort for the auditor increases, which means increased costs.

2. Mobile measuring of individual systems and consumers:
   A measuring plan for mobile measuring has to be created and implemented by an expert. Data is only recorded over a period of specific time periods. With the option of defining specific time periods it is possible to carry out broken down evaluations of specific jobs or print runs (tab “energy consumption Rapida 164”)

Apportionments and taxes

- Concession fee
- Combined heat and power (CHP)
- German Renewable Energy Act (EEG)
- StromNEV Apportionment (§19)
- AbLaV Apportionment (§18)
- Offshore Apportionment (§17)
- Electricity tax
- Grid utilisation fees
An electricity tax reimbursement of 2.05 cents per kW/h is in addition to savings delivered by the reduction in energy consumption. Training and promoting employee awareness can lead to savings of up to 5% in electrical power and up to 10% in electrical work in real terms.

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>in %</th>
<th>kW / kWh</th>
<th>Prices: €</th>
<th>Saving: €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power:</td>
<td>783</td>
<td>764</td>
<td>2.43%</td>
<td>19.0</td>
<td>93.60</td>
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<td>2,524,997.0</td>
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<td>0.045</td>
<td>2,665.17</td>
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<td>5,665.56</td>
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<td></td>
</tr>
<tr>
<td>Net saving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10,109.13</td>
</tr>
</tbody>
</table>

Printing firm with 2 presses (medium format)

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>in %</th>
<th>kW / kWh</th>
<th>Prices: €</th>
<th>Saving: €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power:</td>
<td>660</td>
<td>635</td>
<td>3.79%</td>
<td>25.0</td>
<td>94.57</td>
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<tr>
<td>Work:</td>
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<td>2,167,255.0</td>
<td>3.03%</td>
<td>67,630.0</td>
<td>0.054</td>
<td>3,672.99</td>
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<tr>
<td>Share of apportionment total</td>
<td>67,630.0</td>
<td>0.096</td>
<td>6,469.49</td>
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<td></td>
<td></td>
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<tr>
<td>Net saving</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12,506.72</td>
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</table>

Printing firm with 3 presses (half format)

<table>
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<tr>
<th></th>
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<th>2015</th>
<th>in %</th>
<th>kW / kWh</th>
<th>Prices: €</th>
<th>Saving: €</th>
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</thead>
<tbody>
<tr>
<td>Power:</td>
<td>238</td>
<td>211</td>
<td>11.34%</td>
<td>27.0</td>
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<tr>
<td>Work:</td>
<td>383,363.0</td>
<td>347,202.0</td>
<td>9.43%</td>
<td>36,161.0</td>
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<td>Share of apportionment total</td>
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<td>0.096</td>
<td>3,459.16</td>
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<tr>
<td>Net saving</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>6,380.48</td>
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</tbody>
</table>

An electricity tax reimbursement of 2.05 cents per kW/h is in addition to savings delivered by the reduction in energy consumption. Training and promoting employee awareness can lead to savings of up to 5% in electrical power and up to 10% in electrical work in real terms.

3. Installing a permanent stationary energy measuring system, such as VisuEnergy. Permanently installed energy measuring systems, such as VisuEnergy, record all primary energy consumption on a continual basis regardless of usage 24 hours a day, 365 days of the year. One advantage is that the basis load in the company is measured over an entire year (even at the weekends) and energy efficiency measures can be implemented in a much more structured manner. The data recorded by VisuEnergy is continuously stored in a database. This serves to speed up the auditing process and saves costs.

VisuEnergy actively helps you save energy

KBA Deutschland developed VisuEnergy in response to new laws. VisuEnergy actively monitors the real-time energy consumption of all primary energies in a web-based platform with an interface to a consumption system based on the colours of a traffic light and/or central incident management. Energy management does not simply mean knowing where energy is consumed within a company, but rather to actively train and make employees aware of energy-efficient operation when it comes to high loads.

The traffic light system is a key marker in this context. It helps staff working on high-energy machines to actively save energy according to pre-selected procedures.

VisuEnergy can actively and selectively take up to four consumers (air generators, air conditioning etc.) off the grid for certain periods of time to reduce energy consumption in the short term in the event of upcoming power overloads. This ‘intelligent’ switch (load management) actively prevents expensive additional payments to energy suppliers. What is more, it can also considerably reduce energy costs.

VisuEnergy is offered as a system solution. The specially trained experts from KBA-Sheetfed plan the system on-site and manufacture tailor-made switch cabinets. These cabinets are then connected to sub-distribution boards and the clamp-on current transformers are mounted to the distribution boards. The project planning and commissioning is carried out together with the customer by a technical expert and energy consultant.

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For SpaEfV / ISO50001 certified companies in the first year after installing an energy management system
American packaging company invests in high-tech from KBA

Two new Rapida 106 presses for Beyer Graphics

Recognizing the need to increase its capacity and maintain its high-quality production, Beyer Graphics, a leading New York pharmaceutical, cosmetic and over-the-counter packaging supplier, invested €7.7m (approx.$8.4m) in two new Rapida 106 UV presses — an eight-colour plus coater and a specially-configured nine-colour twin-coater press that is one of only a few in the U.S.

“The investment in these two new high-performance presses will drive our business even further and enhance our capabilities,” says Dan Beyer, president of Beyer Graphics. “We’ll be able to provide our customers with faster, more efficient, one-pass, higher quality work due to the fast press speeds and unique automation found on the presses.”

22 printing and finishing subassemblies

The eight-colour press arrived at Beyer at the end of last year and installing the second press began in February. The latter has a unique configuration of eight printing units plus a coater then two drying units plus another printing unit followed by another coater and a triple extended delivery. With its 13 printing and finishing subassemblies the press is 28m (91.8ft) long.

“We chose KBA because of its leadership experience and reputation in the packaging field and the ability to provide this custom-made nine-colour press,” says Beyer. “Plus, we felt KBA had superior technology and its upfront service and support have been very valuable to us.”

Since 1982 clients have counted on Beyer Graphics for creative packaging solutions. Founded by William Beyer, Sr. as a provider of apparel packaging solutions, Beyer Graphics now also specialises in products for the pharmaceutical and cosmetics industries. Today, pharmaceutical and cosmetics packaging comprise about 80 per cent of the company’s operation. Around 20m packaging products are produced monthly on a production space measuring 6,600m² (71,000ft²). Beyer Graphics has a subsidiary in Hong Kong and a partnership in Honduras.

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Tosho Printing invests in fast Rapidas with LED-UV

Japan used to be a trendsetter when it came to LED-UV curing in sheetfed offset making it all the more noteworthy that Tosho Printing, one of the country’s largest printing companies, fired up two Rapida 106 presses both with future-focused LED-UV curing technology in 2015.

Based in Kawagoe-shi on the edge of Tokyo, Tosho Printing is a subsidiary of the global Toppan group. A highly automated four-colour and a five-colour high-end Rapida 106 have been in operation there since September 2015. The two new Rapidas have raised the bar with regards to productivity within the company. They are equipped with a camera system for monitoring sheet travel, DriveTronic SPC dedicated drives at the plate cylinders, CleanTronic Impact combined blanket, impression cylinder and roller washing units, Emission Extraction System (EES), ErgoTronic ACR auto-register, QualiTronic ColorControl for quality control and inspection, DataMatrix-Select and the LogoTronic Professional production management system.

High production output and short lead times

The management of Tosho Printing knew that their new Rapidas would produce more per hour than their other sheetfed machines and in just one month the two presses met the company’s ambitious targets. Despite high press speeds of 18,000sph, the press operators can relax during production thanks to the high level of automation. The sheets that are cured with LED-UV can be sent straight to post-press reducing lead times, minimising short-term storage requirements and enhancing overall productivity.

Tetsuo Ouchi, corporate officer production control at Tosho Printing: “We hope Japanese press manufacturers will also develop the solutions already offered by KBA.” Nevertheless, he expects to work together as partners, even when it comes to developing new print products. The company recently tested FlyingJob-Change. It permits the even more efficient production of 1/1-colour Mangas on a four-colour perfector. While units one and three are printing, units two and four are being set up or vice versa.

Strong when it comes to newspapers and commercials

Founded in 1911, Tosho Printing now operates 30 sheetfed offset presses and other newspaper and commercial presses at five sites. Yomiuri, Japan’s largest daily, and others are produced at the firm’s three newspaper operations. The other two specialise in commercial products, books and magazines. The same is true of the plant in Kawagoe-shi that operates the two Rapidas. 1,700 employees work at the company.
Making money with modern packaging printing

Packaging printing can still achieve sound results even in a difficult economic environment. It is therefore no surprise that packaging printers have continued to invest during the past lean years for the print industry. A recent installation in the Czech Republic is in operation at Pokart in Holešov. The company added a seven-colour Rapida 145 with coater to its press fleet last year. KBA Report spoke to co-owner Eduard Ivanický about the history of the Moravian company and its most recent investment.

KBA Report: How is your company set up?

Ivanický: In 1999 Zdenek Marušák and I founded a company for producing carton packaging in Otrokovice. Thanks to systematic development and gradual investment we have built up a strong company. In 2011 we moved into a cutting-edge production facility in Holešov. We focus on the development, design and production of paper, cardboard and corrugated packaging. Today we employ 125 staff and process over 15,000 tonnes of carton and 1,500 tonnes of recycled paper on a production space measuring 11,500m² (123,800ft²).

The new company headquarters has enough production, warehousing and office space available. We laid the foundation stone for the plant in Holešov with a new die-cutter machine and a laminator. The facility was renovated in preparation for a new large-format press and further investments in pre-press.

KBA Report: What do you produce and how has your job structure changed over the years?

Ivanický: Our main jobs have always involved cardboard. Our company has changed a lot due to globalisation in the packaging industry. In the beginning we worked on an east German semi-automatic die-cutter and today we have an entire production line from leading manufacturers.

Over the past 20 years demands placed on the colour content and finishing of packaging have risen continuously. Monochrome images on transport packaging have been replaced by full-colour graphics. Up to seven colours, special coating, blind or foil embossing are no longer exceptions. Tougher competition in packaging printing and in packaging production places even higher demands on customer service and on the quality and scope of our services.

KBA Report: How have you adapted to market changes?
Ivanický: Since our company was founded we have focused on establishing a broad and diversified customer portfolio. Through this and thanks to a relatively stable market situation for cardboard packaging we have hardly felt the effects of the crisis in the print market.

KBA Report: What was the reason behind your investment in a new press? What are the advantages of the Rapida 145?

Ivanický: The decision was based on our own needs and a suitable EG subsidy programme. We opted for the press from KBA following a selection process. We did not make any preferences even though we printed on Planeta presses in the past in Otořkovice. Given our average job size of 5,000 to 10,000 sheets we looked for a press with the maximum level of automation and the fastest job change. During the selection phase KBA offered a cutting-edge, large-format press at attractive conditions and won the order. The new press runs problem-free in three shifts. Our next task is to form three teams and gradually increase the press’ performance together with them.

KBA Report: We often hear that it’s a problem to find qualified print personnel. What are your experiences?

Ivanický: Winning over new customers and keeping existing ones are our priorities. This makes it possible for us to get even better, develop new technologies and to integrate these in our company. This all depends on how demanding our customers are and how much they want to spend on packaging. We therefore put a lot of effort into building close and long-term partnerships with them, not only with regard to production, but also developing packaging and design.

The same is true when it comes to the printing process. In 1993 we worked profitably with a four-colour flexo press. In 2015 the same was true of a new offset press. The process depends on the price: if a B0 sheet printed digitally only cost €0.04 and didn’t smell like alcohol, other technologies wouldn’t be interesting anymore. This is why we keep a close eye on development trends and adapt. Currently we aim to print E and F-flute directly, without having to laminate. We are looking for high quality coated microflute and the price comes second.

KBA Report: Your region is known for its wide range of homemade fruit schnapps. Do you share this passion with your neighbours?

Ivanický: (laughs) My speciality is South American Williams pear and our company even has its own plum orchard. Sliwowitz has been our most important giveaway for 20 years. Maybe it contributes to customer loyalty and to our success.

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HR-UV with FlyingJob-Change – ideal for books in short runs

The 175-year-old family-run printing firm F. Paillart situated in the old town of the small French coastal city of Abbeville received a four-colour Rapida 106 with HR-UV and perfecting after the second printing unit in summer 2015. The press which is equipped with KBA FlyingJob-Change for the efficient printing of books in small and mid-sized run lengths has replaced two presses from a German competitor.

A globally renowned family business
Founded in 1839 by Clément Paillart, the company became known for printing the L’Abbevillois local newspaper. Advertising brochures and religious books followed. Step-by-step the company, which employed up to 300 people in its heyday, specialised in printing books in long runs. In 1919 F. Paillart became famous worldwide for printing “In the Shadow of Young Girls in Flower”, a novel by Marcel Proust awarded with the Prix Goncourt, for the Gallimard publishing house. The company acquired a lot of customers from the scientific community in Paris in the 1930s. Since then the printing house managed by Frédéric Paillart, the sixth generation of the founding family, has specialised in producing high-quality, scientific, religious and literary works in small to medium-sized runs.

Today 17 employees produce black and white paperbacks and four-colour works on semi-matt and special stock on cutting-edge presses in an abbey built in the 18th century. 90 per cent of its sales are still generated in offset printing which is used for print runs of more than 200 copies. A Canon press is used for reprinting older works in even shorter run lengths. In order to offer a variety of formats, binding techniques and paging, F. Paillart has an extensive array of finishing systems including cutters, folders, gang and thread stitchers, perfect binders and a laminator for book covers.

High-tech made by KBA
The new Rapida 106 is the first KBA press in the company’s 175-year-old history. Frédéric Paillart: “The innovative technology offered by KBA tipped the scales in favour of this press. We were looking for a machine that would optimise our job changing times while delivering a consistently high level of quality and increase productivity. We had to lower our prices due to the fiercely competitive market and we could only do this with cutting-edge technology.”

“We took a risk with our decision to switch to only one press from a new manufacturer and new technology, but it paid off,” says Frédéric Paillart. “We are amazed at the outstanding print quality we can achieve with the Rapida. Thanks to HR-UV curing we no longer have issues with waste, ink splashes or scratches. In the past we had to store our printed sheets somewhere to dry for several days before finishing. Today every sheet is dry when it comes out of the press. The colours are more vivid and we no longer need powder before laminating. We were able to cut press downtimes with FlyingJobChange. While one job is produced and perfected with black ink in units one and three, the plates in units two and four are changed automatically in preparation for the next job. The job change takes place without stopping the press. The productivity gains are enormous with our small print runs. KBA trained our staff perfectly in preparation for the new technology.”

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Grupo Gondi places largest order in Latin America so far

Mexico's biggest packaging group orders two jumbo Rapidas

Less than half a year after signing up for a large-format Rapida 145 (sheet size 1,060 x 1,450mm/41.7 x 57in) for its Guadalajara plant, Mexico's Grupo Gondi has placed a second order for a state-of-the-art Rapida 164 (sheet size 1,205 x 1,640mm/47.2 x 64.5in). Both presses are each equipped with eight printing units and two coating and two drying units. This is KBA-Sheetfed's largest sheetfed order so far from Latin America.

These orders reflect Grupo Gondi's commitment to investing in the most innovative and productive technology in this format class and its trust in KBA and Mexican subsidiary KBA Latina.

Extensive equipment and automation
Both twin coater presses are highly automated for fast job changes and a consistently high print quality with little waste. Amongst other features the presses are equipped with DriveTronic SPC simultaneous plate changing only offered by KBA, CleanTronic Synchro simultaneous washing systems, inline quality measurement and control with KBA QualiTronic ColorControl and a high-speed packaging for maximum productivity when it comes to large print runs. The Rapida 145 additionally features hybrid technology for the use of conventional as well as UV ink enhancing flexibility regarding non-absorbent substrates and unique finishing effects.

Eduardo Posada, CEO of Grupo Gondi: “We continue to invest in the best technology in order to provide the best packaging solutions together with the innovation that our markets need. Our plants and equipment are constantly upgraded to keep up our commitment to our customers and in line with our goal of becoming the best option in the packaging industry. Carton packaging from our company enhances our customers’ brands. We therefore need the best technology and team available.”

Stefan Deuster, CEO of KBA Latina: “We are very proud that Grupo Gondi sees us as their long-term key supplier supporting their continued growth in Mexico. With these investments Grupo Gondi will be able to maximize its productivity and quality on the highest technology level worldwide. Through our service and technical support we will ensure that they will get the best out of their machinery throughout the whole lifecycle of their equipment.”

In less than six months Grupo Gondi ordered both an eight-colour, twin-coater Rapida 145 and Rapida 164 (photo) from KBA-Sheetfed with the highest level of automation.

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Consider operational safety with new investments

Making working with presses safer

Decisions to invest in new printing equipment are influenced by many factors. Many depend on the respective job spectrum, desired level of automation, in-house conditions and long-term business ties with suppliers. This is perfectly correct as the purchase of a new sheetfed offset press has to first make sense economically. Criteria surrounding operational safety often have a much lower priority or are considered a given when it comes to new investments. Nevertheless, the quality of the work space at the press is a deciding factor for a company’s productivity and operating results.

Long-term staff motivation and efficiency only stems from a healthy working environment. Avoiding and/or eliminating potentially dangerous activities, such as unusual movements, heavy lifting, noise and odours or stressful operating procedures, can noticeably reduce the number of chronic illnesses and liable accidents. At the end of the day every employer should consider the aspect of operational safety when investing in the latest technology for the good of their staff.

Avoiding dust, odours and migration

Kit offering reductions in IPA emissions plays a key role when it comes to the odours that occur during certain processes. These are normally roller coatings for low-alcohol printing and for printing with an alcohol substitute (both for conventional, UV or hybrid inks). EES (Emission Extraction System) also offers this for UV printing and finishing on KBA Rapidas. It prevents unpleasant odours occurring around the delivery and thus at the press operator’s main working space, while suctioning dust at the same time. In some special cases (e.g. HR-UV printing) suction in and around the inking units to minimise ink misting can also make sense.

The topic of migration is also gaining in importance. As part of its PressConsum consumables range, with SensPrint KBA offers printing inks that have been specially tailored to printing food packaging for goods that are sensitive to odour. The inks are migration-neutral. The only potentially penetrating migratory ingredients in KBA SensPrint are foodstuffs or food additives. The series complies with all legal requirements tied to printing food packaging and also offers printers and end users the highest level of safety.

Making processes simpler and safer

Practical innovations often create a big impact. An example of this is Drive-Tronic SIS sidelay-free infeed. It dispenses with setting and maintenance tasks and relieves the operator from intervening manually which leads to bad posture, reduces the danger of injuries and prevents mistakes from manual settings.

A further example is automated blanket change: a 65 to 70 jack with a torque wrench is needed to release the blanket clamping bar completely. This takes around eight minutes and working with the wrench is physically exhausting especially for an operator’s joints. KBA offers battery-operated screwdrivers especially suited to blanket changing which make it much easier to open and close the clamping bar, and also reduces the time needed to do so by around a third.

A plate lift also saves the operator from long walking paths which can be physically demanding especially when it comes to raised presses. Large-format printing plates in particular are rather difficult to handle and can cause damage or injury when not transported correctly. The press operator or assistant only has to carry single plates to the printing unit’s plate-loading cartridges on the gallery.
The delivery also guarantees additional security. Nowadays they are configured to stop automatically if a foreign object or the operator interferes with the delivery. Non-stop roller facilities on Rapidas reduce the stress placed on the operator and enhance safety. As soon as the pile plate is lowered when the machine is slowing down at the end of a job the roller facility for nonstop delivery starts automatically and protects the operator from the moving gripper carriage. If the press isn’t running, the nonstop facility can be retracted by pressing a button.

More comfort with AniSleeve, AniloxLoader and SFC
KBA’s coating units are further examples of how production processes can be automated and made safer. AniloxLoader is a sensible option for frequent anilox roller changing on the Rapida 106. Up to three anilox rollers can be stored in the coater’s magazine. Anilox roller changing takes place automatically and in parallel to other makeready processes. This not only delivers time savings but also saves the operator from the heavy lifting to do with handling anilox rollers.

In large format changing the anilox roller sleeve is easy and despite its dimensions can be carried out by one person without much physical effort with the AniSleeve system. The sleeves are pulled out after the bearings are released at the sides, and they are transported to a depot via a simple lifting system. From here sleeves with various pick-up volumes can be inserted into the coater without much physical effort. Cranes which were used on large-format presses in the past made this process even easier. However, in Germany this requires a crane licence as it can be dangerous if not used correctly.

Coating forme changes on Rapidas with SFC (Simultaneous Forme Change) do away with time-consuming clamping, bolting and tensioning as all this is done at the touch of a button. This enhances process security and lightens an operator’s workload as he no longer has to use his hands or tools on moving parts. Furthermore, coating forme changes can take place in parallel to other makeready processes at the printing units.

There is a raft of options associated with health and work safety in printing and do more than is officially required. Companies can decide for themselves whether to use this potential and offer their staff a safe and ergonomic workplace.

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New start for IME by Estimprim in Autechaux

The jumbo Rapidas came too

In October 2015 French book producer IME by Estimprim celebrated its new printing site in Autechaux in Franche-Comté with over 400 guests. Two large-format Rapida 162a presses stood proudly alongside the new manager trio. Specialists from KBA-France moved the presses from IME’s historical site in Baume-les-Dames to Autechaux.

Saving a traditional firm

As one of France’s leading book printing companies since 1959, IME has operated large-format KBA presses for twelve years. Its core competence lies in producing school books with adhesive binding or thread-stitching as well as maps and road maps in large print runs. Despite its loyal customers and excellent know-how, the company was not able to stand the pressure from the structural shift, price wars and competition from abroad in publishing, and filed for bankruptcy in 2014. Just as everything seemed to be lost, IME got a second chance. It was taken over by the Estimprim Group from Eastern France in October 2014. The Group’s 45 employees generate sales of over €7m ($7.78m) at its three production sites in Besançon, Champagnole and Montbéliard.

Relocation and realignment

Shareholders Stéphane Béra, president, Philippe Berteaux, managing director, and Olivier Guermouh, sales director, hope the takeover will double sales and expand its offerings. In order to reach this goal the company invested €2.5m ($2.78m) in the new structure. It took on 70 of IME’s employees as well as all existing machines and production plants.

To optimise the production process three existing presses, including the two giant Rapidas, were moved to Autechaux from Baume-les-Dames, where IME’s post-press was located earlier.

The service team from KBA-France carried out the press relocation and re-installation in the new 6,000m²-building (19,685ft²) successfully within the time agreed. The Rapida 162a-5+L was moved in February 2015 and the Rapida 162a-8 SW4 was relocated and re-commissioned four months later. The technicians from KBA-France also overhauled its entire measuring technology system. The Rapida 162a-8 is now equipped with the cutting-edge ISO 12647 and PSO-accredited QualiTronic ColorControl colour measuring system.

A look to the future

President Stéphane Béra: “The relocation was completed on-time thanks to the outstanding collaboration with KBA. Despite production downtime, we didn’t have to turn down a single order and made all of our deadlines. The procedures were implemented exactly how we wanted them. Now we all we need to do is get the company back in the black. Thanks to KBA, our presses perform well and are reliable even though they are slightly older. The next few months are decisive for IME by Estimprim.”

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KBA QualiTronic ColorControl with Instrument Flight® popular in the USA

There is growing demand among quality U.S. sheetfed offset printers for the inline colour measuring and colour control system KBA QualiTronic ColorControl with Instrument Flight® integrated grey-balance control from System Brunner. KBA offers this system under the name QualiTronic Instrument Flight as an option.

“The combination of KBA QualiTronic and Instrument Flight® from System Brunner is acknowledged as the leading inline colour control strategy on the market,” says Chris Travis, director of technology at KBA North America. “KBA QualiTronic Instrument Flight takes into account more than 30 process variables and ensures the correct colour and grey balance. It was recently expanded to include new balance control apps and new global standards. The unique five-star appraisal system notifies the press operator of the print quality achieved under the selected standard. We’re pleased that so many of our customers have chosen to add it to their press installations and we’re anticipating more of these installations in the future.”

Many printing companies calibrate their presses to G7® every one to two years, which includes grey balance and tonality. But in daily production, printers are not able to control colour according to these metrics, and only able to control solid densities. Variations in the process with ink, paper, water, etc. lead to deviations in grey balance and tonality when only controlling the solid ink density (SID), missing compliance with G7 requirements. System Brunner’s Instrument Flight® controls colour in print production including grey balance, to-nality, solid CIELAB /densities, TVI and more. Therefore this technology holds the printing production in the G7 target range.

One of Instrument Flight’s most unique features is Balance Navigator®. It allows the fine-tuning of grey balance and tonality on the fly to keep the G7 targets or adjust the colour according to customer needs. Combining KBA QualiTronic with the full-scale version of Instrument Flight® creates a closed-loop system for measuring and controlling colour during impression. It assesses the visual appearance of every printed sheet, thus promoting stable, uniform production from one day to the next and from one press to another, whilst cutting waste.

One satisfied customer is Dee Paper Box Company, a leading folding carton firm located in Chester, PA, which has installed a new KBA Rapida 145 double-coater UV press with a host of unique automated KBA technology. Dee Paper’s press combines its KBA inline QualiTronic ColorControl capability with the full-scale version of Instrument Flight® inking unit control software.

Another KBA customer, NEPA Carton and Carrier Company in Moosic, PA, successfully operates a new six-colour KBA Rapida 145 large-format press with QualiTronic ColorControl and Instrument Flight®. NEPA president Mike Collins: “This important feature allows the press to be controlled via grey balance with the QCC option from KBA. It also is the only system on the market which allows a printer to change and select the grey balance that they prefer on press and control. This allows NEPA to run and control its printed product to G7 standards.”

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Long-term service partnerships on the rise

Shaping-up older presses

Investment in new offset web presses has fallen significantly in recent years given structural shifts in media-driven areas of the print industry. The machines in the market are getting older, demand for repairs, preventative maintenance, retrofits, upgrades and expansions is growing. As part of its customer service portfolio KBA-Digital & Web offers a comprehensive programme aimed at keeping older presses in shape and securing additional business for its users with market-orientated retrofits. More and more customers rely on long-term, contractual partnerships.

Here are some examples:

**Tamedia invests in comprehensive service support**

Swiss firm Tamedia and KBA-Digital & Web concluded an extensive four-year service framework agreement for the KBA web presses in operation at Tamedia’s sites in Zürich, Bern and Lausanne. The contract which is worth several million euros is expected to secure the availability of the press lines and will contribute to the optimisation of the planning and budgeting of necessary measures. It includes the planning and implementation of essential service work, inspections, repairs and retrofits, crucial integration and modification work, the delivery of spare parts and consultancy and support of Tamedia with audits, training and project management by KBA experts. Swiss KBA subsidiary Print Assist will ensure the coordination on-site. A 40-year collaboration is thus continued with this long-term service contract.

In 1980 Koenig & Bauer delivered one of the first multi-unit Commander press lines to Tamedia and the Swiss were also the first users worldwide of the then up and coming triple-wide web presses with stacked nine-cylinder satellite printing units in 2003. The multi-unit KBA Commander 6/2 installed in Zürich thirteen years ago has 16 printing towers, 16 reelstands and five folders. Another large Commander 6/2 line with nine printing towers, nine reelstands and three folders went to DZB Druckzentrum in Bern, a member of the Tamedia group, in 2004. Tamedia also operates a Cortina which was delivered to Centre d’ Impression Lausanne SA in 2006 and is Switzerland’s only waterless offset web press.

**KBA PressSupport 24 for Coldsetinnovation Fulda**

A KBA Commander satellite press with an hourly output of up to 90,000 full-colour newspapers has been in operation at Coldsetinnovation Fulda in Eichenzell, Germany, since 2010. The highly automated press that was extended in 2011 consists of three reelstands, three printing towers, a KF 5 folder and numerous add-ons for inline finishing. The long-standing partnership between KBA and the printing company in Hesse has been expanded with a service agreement.

Siegfried Wahl, assistant vice-president and technical director at Coldsetinnova-

“We have worked successfully together with KBA for decades. We aim to increase the production reliability and efficiency of our press further with this service agreement.”

Siegfried Wahl

A look at the console room of the multi-unit KBA Commander 6/2 installed in 2003 at Tamedia in Zürich
Coldsetinnovation Fulda signed a five-year service contract with KBA. At the contract signing, sitting l-r: Siegfried Wahl (vice-president of Coldsetinnovation Fulda) and Thomas Potzkai (head of service/project management at KBA-Digital & Web). Standing l-r: Matthias May (KBA), Benjamin Köhl (head of the print team at Coldsetinnovation Fulda) and Michael Braun (KBA)

Steffen Raunecker (r) technical director, at Vogel Druck, and Thomas Potzkai from KBA-Digital & Web look forward to the long-term service partnership

one of the most modern web offset printing firms in Germany for a KBA C48 commercial web press delivered in 2014 and a twin-web 32-page KBA Compacta 217 delivered in 2006.

Along with the supply of spare parts the agreement stipulates regular maintenance of the commercial presses and monitoring production including rectifying any technical malfunctions that occur via KBA PressSupport remote maintenance. VDM managing director Rolf Lenertz: “In this difficult competitive environment a high level of production efficiency and security have become increasingly more important for the long-term economic success of our printing company. An essential element of this is the routine maintenance and permanent monitoring of our commercial web presses by experienced professionals.”

Christoph Müller managing director of KBA-Digital & Web: “Concluding service contracts offer our customers the security to get fast professional help at foreseeable costs on demand.”

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The DuMont media group in Cologne, Germany, is one of Koenig & Bauer’s oldest customers. Their association dates back 180 years. The publishing house has opted once again for cutting-edge newspaper press technology from Würzburg. A highly automated KBA Commander CL will come on stream in autumn 2016 at subsidiary MZ Druckereigesellschaft in Halle. It will replace a KBA Express delivered in the early 90s.

Alongside the Mitteldeutsche Zeitung newspaper, MZ Druckereigesellschaft’s 115 employees produce advertising supplements, brochures, booklets and other printed matter in Rhine and half-Rhine format. This is in addition to extensive mailing and logistic services.

Large family-owned media group
The DuMont media group has three business segments: regional media, Business Information and digital. Along with the media brands Kölnische Rundschau, Berliner Zeitung, Mitteldeutsche Zeitung, EXPRESS, Berliner Kurier, Hamburger Morgenpost and numerous regional ad supplements, its portfolio also includes the DuMont book publishing house as well as local radio stations and TV channels, such as Köln tv, TV Halle and joiz Germany. What is more, DuMont media services is one of the leading publishing service providers in the field of media production, call centre and process management. Via Venture-Fonds Capnamic and DuMont Venture, the media group has shares in over 20 start-up companies.

Highly automated and flexible for special ad formats
With a maximum web width of 1,400mm (55.1in) and a cylinder circumference of 1,020mm (40.2in) the new four-high Commander CL can print up to 45,000 full-colour newspapers per hour with 32 pages in Rhine format or 64 pages tabloid. It comprises two four-high towers, a KF 5 jaw folder and two Pastomat reelstands with the Patras A reel-logistics system.

A comprehensive automation package consisting of pagination change, inking unit and cylinder washing units, fan-out, colour measuring and control systems, colour and cut-off register controls and automatic plate changing systems reduce job changing times, waste and operation and maintenance efforts to a minimum. Equipment, such as Zip’n’Buy, Skip Slitter, glued Superpanorama (MultiView), half cover, spadia and a section stitcher, allows the production of special ad formats. Provision has been made for the addition of ribbon stitcher.

The Commander CL will be controlled from two ErgoTronic consoles featuring EasyTronic software for optimised press start-up and automated run-down. Alongside a software package for maintenance and servicing, a KBA interface connects the customer’s existing EAE PRINT job preparation and presetting system and the EAE VIP planning and statistic system.

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In early December 2015 HP and KBA presented the world’s first HP PageWide Web Press T1100S for the growing corrugated packaging market to international industry experts. The gigantic inkjet web press with a web width of 2.80m (110in) was developed by HP and KBA-Digital & Web Solutions in close cooperation. It opens up new opportunities in terms of the flexible production of corrugated packaging in various formats and run lengths.

“Converters and their customers alike need to create more targeted, effective packaging while reducing costs,” says Eric Wiesner, general manager, PageWide Web Press (PWP) division, HP Inc. “HP and KBA combined forces to bring the world’s most productive press to market, offering more value to high-end converters with the efficiencies of pre-print and digital in one press.”

DS Smith Packaging as first user
DS Smith Packaging is the first customer to install the HP T1100S. “The new HP PageWide Web Press T1100S is the next step in our ground-breaking digital Pre-Print programme,” says Stefano Rossi, CEO, DS Smith Packaging Division. “It will provide our customers with unprecedented short-run flexibility and quality consistency.”

The press’ Multi-lane Print Architecture (MLPA) creates an immense paradigm shift in the production of corrugated board. Like a highway, HP MLPA splits the web into multiple print “lanes” during production enabling different jobs, with different box sizes and run lengths, to be printed next to each other simultaneously. Corrugated converters can now print only what is needed, when it is needed.

Fast, high-quality production
As more brands demand customised and personalised packaging, converters must accommodate faster turnarounds and shorter run lengths, while producing high-quality printed solutions at lower costs. With enhanced priming options, including four-colour HP A50 aqueous pigmented CMYK inks, customers can print in a high quality on standard uncoated and coated corrugated liners from 80-400g/m² (GSM).

In cooperation with KBA, HP offers a range of equipment and automation options for the T1100S. These include primer and over-print varnish coating solutions (OVP), automatic reel change as well as the KBA Patras fully automated paper logistics system.

Christoph Müller, CEO of KBA-Digital & Web Solutions, when presenting the inkjet giant: “KBA has 200 years of experience in press engineering and has gathered extensive know-how in handling sensitive substrates and large web widths. HP has played a global leading role in hard and software for 76 years and over the past 31 years has continually pushed innovation in the field of thermal inkjet technology forward. Users of the HP T1100S PageWide Web Press will profit from our joint knowledge and the synergies between both companies.”

KBA RotaJET: High-volume digital printing for commercial and industrial applications

With the RotaJET 76 KBA unveiled an inkjet web press for 4/4 colour commercial and publications printing at drupa 2012. The first KBA digital press was developed within a year as part of an alliance with R.R. Donnelley from the USA. For many years the world’s largest printing company has been a pioneer when it comes to implementing inkjet technology in the graphic arts industry. KBA has brought its expertise in precision engineering and its experience with mastering challenging stock in large web widths to this efficient coalition. Over the past four years this partnership has resulted in the RotaJET 168 and 225 which until recently were the widest and most high-performance inkjet web presses on the market. Such digital presses are predominantly popular with industrial and packaging printers. At drupa 2016 KBA is presenting a RotaJET L whose web width can be extended flexibly up to 138cm (54.3in).

In a record time of only eleven months in 2012 KBA unveiled an operational RotaJET 76 at drupa 2012. Although the press still had potential for improvement in terms of print quality after such a short development period, industry experts immediately recognised its superiority when it came to web guidance, colour registration, register and waste. The print industry appreciated KBA’s frankness displayed in brochures and books printed on the RotaJET 76 and distributed at the show informing about the planned steps to optimise its print quality on various substrates. These steps have been achieved in the meantime. This is how visitors interested in the developing industrial inkjet printing market became aware of the RotaJET’s potential.

Who dares, wins
During the time that followed KBA worked hard to continually improve the inks, inkjet technology and software for the RotaJET. Numerous successful print demos for traditional and new digital print markets and ongoing talks with prospective clients resulted in the development and construction of the RotaJET 168 for the decor market. At that time this 168cm-wide (66.1in), single-pass inkjet press was the most productive high-speed inkjet system in the graphic arts industry. Developing a press with a web width previously unheard of in this demanding market segment in terms of quality was not without risk. Maximum print quality, extreme reproduction accuracy and the highest level of efficiency were essential. In the end it’s all about replacing the extremely high quality, yet very challenging and expensive gravure printing process with inkjet printing which is a lot faster and economical when it comes to smaller decor volumes.

Given its many years of experience with customised projects KBA was able to complete the task in the time period specified. KBA engineers moved away from the basic concept of the RotaJET 76 and created an entirely new machine base. The inkjet arrays were designed more flexibly, suitable inks were developed and qualified, software was adapted, RIP technology was scaled, etc. Today we can say we achieved our goal.

RotaJET 168 – basis for RotaJET L
Its flexibility for various requirements and markets was central to the design and development of the RotaJET 168. Thus a new press design with unparalleled flexibility was created with the redesigned RotaJET L series.
The single pass RotaJET 168 inkjet press for the decor market was delivered in 2015. It was the most productive high-speed inkjet system in the graphic arts industry until recently. Perfect print quality, extreme image consistency and maximum efficiency are essential in this extremely challenging market segment.

The RotaJET 138 is the top-of-the-range model belonging to the RotaJET L series whose web width can be expanded flexibly from 77 to 138cm. With the right configuration it can be implemented both in the fields of commercial, publication and advertising printing as well as industrial and packaging printing.

RotaJET 225 – Top model of VL series
The success of the RotaJET 168 in decor printing and its official launch by our customers Interprint at Interzum 2015 led to the first order of a RotaJET 225 by a European customer. The press will be delivered before drupa 2016 and represents a further milestone in the development of the KBA RotaJET. With its speed of 18,000m²/h (193,750ft²/h) the RotaJET 225 sets new standards in industrial digital printing. No other digital system can even remotely come close to keeping up with RotaJET 225 in decor printing.

Digital print market shifts
Demands placed on high-speed inkjet systems have increased further. Some of the systems operating in the field of commercial printing have reached their limits in terms of throughput, efficiency, substrate selection and reproduction quality, and fail to meet all market demands. User wishes clearly go in the direction of printing on coated offset stock with increasing reproduction quality.

At drupa 2016 the focus will clearly be on handling coated offset stock thus making it possible to expand on high-speed inkjet applications considerably. Along with industrial applications and publishing, KBA is technologically equipped for the growing commercial digital print market. What is more, both the RotaJET L and RotaJET VL series address interesting growth fields in the packaging and corrugated industry. Here these are regarded as complimentary systems to the successful large-format KBA Rapidas.

At drupa KBA exhibits the RotaJET L as a 4/0 press due to space limitations with examples of how it can be used in traditional and new digital print markets.

The digital print market is in motion and remains exciting to observe. KBA makes a technical contribution in many fields. We would be happy to demonstrate and explain more about our redesigned RotaJET L live at drupa in hall 16 (stand C47). Come and see us.

Oliver Baar
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On the racetrack with the EVO XG from Flexotecnica

Dutch film printer Altacel Flexible Packaging in Weesp fired up a ten-colour EVO XG gearless flexo press from KBA-Flexotecnica in 2015. Managing director Alec Frijlink: “We didn’t just pick any machine, we invested in the difference.”

Altacel Flexible Packaging (Altacel) prints, laminates, cuts and produces pouches for the food industry. Demands in terms of food safety are high. “This is fantastic,” says managing director Alec Frijlink. “We stand out from the crowd with our knowledge. The Netherlands is one of the most expensive places in the world to have a production site. Nevertheless, we have to produce our products at market prices. This can only be done with a streamlined organisation. We rely on smart and qualified staff who get the most out of the machines, and we strive to have a state-of-the-art production fleet.”

A different mindset
Together with his project manager Frans van Baren, Frijlink likes to look for technological limitations. “Some of our customers are still convinced that gravure is the only technology that can offer an optimum print quality. We wish to change this way of thinking and enjoy showing them the possibilities delivered by today’s flexo technology. However, the right machines are paramount in order to do this.”

In 2011 the management team put their plans for updating their press fleet on paper. Frijlink and van Baren’s most important requirements for the new machine were production stability and short make-ready times. Additionally, they definitely wanted a high level of automation and the machine to integrate seamlessly into the process flow.

“Of you see a person carrying out the same task ten times a day then you could equally let a machine do the task.” Ultimately, Altacel wanted a ten-colour press with carbon-driven and extremely robust bearings permitting the handling of the most challenging substrates in a high quality.

Robust design
In 2012 a team from Altacel visited the relevant European press manufacturers.

Frans van Baren: “We are somewhat headstrong and wanted a flexo press that was tailored to our every need. An example, around the corner from us is QuadTech, a global player specialising in quality control with cameras. We wanted some of these in our machine and the engineers from KBA-Flexotecnica made it happen.”

Frijlink: “I want to see clear structures when I look inside a press’ inking unit, an oasis of calm. Our EVO XG features pipeless technology which means that the unit no longer has any hanging inking pipes. This solution is extremely robust and makes cleaning the printing unit a lot easier.”

Van Baren: “Another example of the press’ robust design are the fully auto-

Surrounded by film rolls
Altacel was founded as a commercial enterprise in 1959. The company, which in the meantime produced packaging itself, moved to Weesp, near Amsterdam, in 1969. The father of today’s managing director Alec Frijlink has worked at the company since 1978. His son Alec, who crawled and ran through the rolls of film as an infant, joined Altacel in 1990 and became managing director in 2001. The company’s 43 employees produce products for national and international customers in the food industry. Industrial packaging is a second, solid pillar of the company.
Anilox sleeves can be changed fast even during production with the press' pneumatic ejectors and the patented SSC – Safe Sleeve Change – system.

Altacel places great importance on a high print quality and extensive automation for fast job change.

Lean production
Frijlink: “Technology is important, but it’s not the whole picture. We do not just invest in a press, but also in its after-sales support. Our entire business model is geared around our work in two shifts. We could do without press downtimes. The German-Italian combination of KBA and Flexotecnica was another decisive reason why we opted for the EVO XG. Italians are pro-active and rely on short paths. And we are in good hands with KBA in terms of after-sales support and service.”

Extensive renovating and relocating measures took place before the EVO XG arrived in eight trailers at the printing house in 2015. 7,000 of 8,350m² (90,000ft²) production space was reorganised. “We aim to produce as leanly as possible and the new investment was a good occasion to set up the plant as a racetrack. Our products have to be sent through the company in one go.”

What is more, 44 stilts had to be driven into the ground and the roof of the hall for the EVO XG had to be raised by a few meters. “These 44 stilts have been so advantageously placed that second press can be installed here if necessary.”

Challenging work
The new EVO XG will be predominantly used for challenging jobs. Short makeready times are more important when it comes to relatively small jobs than the EVO XG’s high print speed which can reach up to 600mpm (1,968fpm). The press features pneumatic ejectors making it possible to change the anilox sleeves with the patented SSC – Safe Sleeve Change – system fast and safely during production. The ‘Total Quality Management Approach’ from KBA-Flexotecnica fits perfectly to Alec Frijlink’s own management philosophy. “Everything that leaves the company must be able to be processed by our customer’s machines without any problems. This only works with standardised processes and the constant search for improvements.”

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“I want to see clear structures when I look inside a press’ printing unit, an oasis of calm.”
Alec Frijlink
Success with small film bags

Franz Strubl manages Strubl in Wendelstein near Nuremberg as managing director together with his brother Christoph. The first EVO XDs in Germany has been at the heart of the company’s extensive press fleet since summer 2015. This extremely flexible press from KBA-Flexotecnica fits the mid-sized Franconian company’s successful niche strategy perfectly.

According to Strubl the company’s success is down to its broad product portfolio, the flexibility of its employees and press fleet as well as the management’s sense for the right job mix. None of this would work without the perfect technology.

Franz Strubl: “We stand out from the crowd through niches, know-how and our services provided to bulk producers of plastic.” Strubl’s some 2,000 clients come from various industries at whose trade shows Strubl is present. “Our customer strategy is to develop film and pouches according to certain features such as type, form, material, size or characteristics. The customer can configure its own individual product.”

Small big player or a big small player

Strubl is active in three business fields:

- Plastic film and bag production
- Cleanroom packaging

• “Plug & Pack” packaging machines and systems
• Film extrusion and the manufacturing of cleanroom packaging, which is generally unprinted, takes place at the plant in Nabburg, close to the Czech border in Germany. Strubl’s plant in Wendelstein, south of Nuremberg, primarily prints and finishes. The company’s mechanical engineering segment is also based here.

Franz Strubl continues: “Depending on point of view, we are either a small big player or a big small player.” Unlike the industry’s big players, millions of carrier bags or food packaging contribute very little to the €22m ($25m) in annual sales generated by some 100 full-time employees at Strubl’s two sites. The company does produce carrier bags now and again, but it’s the small film bags delivered to specialist stores across Europe that are its main business. These bags are to be filled with rawlplugs, screws, washers or insoles for shoes for example.

Impossible is not possible

One of the company’s key strengths is its large machine fleet for finishing bags. Around 40 machines carry out almost all types of perforation and sealing with various holes and shapes. Speed is not the be-all and end-all, but rather a “can-do” attitude applies. The post-press staff often operate and support several machines at once. Some machines are rather unique, and others have been modified by Strubl’s technicians for their own requirements. In order to meet as many customer wishes as possible, the company’s technical capabilities and product range are continually expanded, for example with the recent addition stand-up pouches.

In-house engineering

Strubl is not only a film producer and post-press specialist, it is also a machine builder. Machine systems are delivered under the Plug&Pack brand which remove film bags from the cartridge (ideally those also produced by Strubl), separate these, individualise these using thermal transfer printing and open them so that they can be filled manually or automatically. Almost 150 of such systems have been delivered throughout Europe, from Russia to Spain and Italy. This has given the firm a further solid pillar and a road to “maximum added value”.

“150 packaging machines” may sound like a lot, but this does not hide the fact that Strubl continues to generate over 50 per cent of sales with film and bags.

New product range: cleanroom packaging

With the relatively new segment and future-focused topic of cleanroom packaging, Strubl has received a lot of attention expanding beyond specialist titles for the pharmaceutical and packaging sectors. The photographer from the Frankfurter Allgemeine Zeitung (FAZ) daily recently photographed Franz and Christoph in front of an extruded film web at the Nab-
In its first three months in two-shift operation the KBA-Flexotecnica EVO XDs processed 317 jobs, but only printed 3 million meters. This “cannot be compared to the amounts printed by bulk producers,” says Franz Strubl. Just how important smooth order organisation, job preparation and set up are becomes apparent with the knowledge that almost every third job of these 317 orders was shorter than 2,000mm (6,561ft).

Nevertheless, it is advantageous that the new flexo press can print at speeds of up to 350rpm (1,148fpm) even if Strubl has rarely used the maximum speed until now. The Franconian packaging producer uses four different ink systems – for imprinting, reverse printing, printing with laminating inks and UV-resistant colours – which makes production even more complex.

**Makeready world champion**

Whoever is used to Strubl’s complexity has an easier time, which is why the company trains media technology students specialising in flexo printing. One of these former trainees is Jens Hopf, who took over the printing department with the installation of the EVO XDs.

Strubl’s printers set up no less than 1,216 inking units for the 3 million linear meters mentioned. Franz Strubl praises his team: “We are the makeready world champions.” Plant manager Hopf is pleased with his new press’ level of automation and his boss summarises this as “Strubl 2.0”. Both refer in particular to “Auto Impression Flexotecnica” (AIF), which helped to reduce the web length needed during makeready to around 100m (328ft). Hopf: “Set-up is extremely quick and AIF saves us a lot of stock.”

**Clear specifications for the new press**

The press to replace a twelve-year-old Flexotecnica Tachys had to fit in the space available in terms of height and the feasible financial framework. The production width and roller diameter were especially important. Presses that were orientated to carrier bags and engineered for a blank width of 1,280mm (50.5in) are not suitable for Strubl. Jens Hopf: “We also have 300, 400 and 500mm (11.8, 15.7 and 19.7in) film widths that we print. Our minimal print length is 280mm (11in). Many suppliers do not offer this due to the printing sleeve sag.”

**Slimmer machines that can print wider**

“Our printing sleeves are very slim,” says Franz Strubl. With just 1,000 linear meters this is enough to print four printed images in repeat length. Compared to previous machines, with regard to substrate width Strubl can now even print wider webs (1,050mm/41.3in compared to 880mm/34.6in) and this is thanks to the press’ compact design covering just a few square meters. Franz Strubl continues: “We have a slimmer press, nevertheless we can still print wider.” Only a handful of the presses currently on the market fit Strubl’s needs, including the EVO XDs.

The central-cylinder press delivered to Wendelstein is equipped with eight printing units and carbon axles for mounting printing sleeves. The automatic Speedy washing system also saves the operator work. A video web monitoring system from BST Ellromat with the interactive register module Regi Touch helps to guarantee a consistently high level of print quality. A slitter allows Strubl to combine different jobs in one press pass.

Franz Strubl has no doubts regarding the role of printing within his company: “An individual printed product speaks to customers more than as a 50µm standard flat bag that anyone can offer.”

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**Top: Cut-offs of only 280mm as well as film widths of 500mm and smaller are Strubl’s day-to-day business.**

**The EVO XD series**

The EVO XD series takes into account the trend towards shrinking print runs in the field of flexible packaging printing with its dedicated drive technology and practical automation for short makeready times. The EVO XD has a maximum speed of 400 mpm (1,312fpm) and a maximum web width of 1,600mm (62.9in). The XDs and XDm models are engineered for a maximum speed of up to 350 mpm (1,148fpm) and have a printing width of 1,000mm (39.3in) and 1,200mm (47.2in) respectively. The compact press is only 10m long (32.8ft) and 5m high (16.4ft).
Ten-colour EVO XG at Impact Innovations in Tennessee

Cutting-edge flexo 'Made In USA'

In summer 2015 Impact Innovations held its first open house at its facility in Memphis, TN, with the theme 'Made In The USA' to present the first of two new presses – a KBA-Flexotecnica EVO XG ten-colour flexo press. The firm is bringing jobs and work back to the U.S. from Asia, where its gift wrapping paper used to be produced.

Memphis employees surprised company president Dammermann and his family the day before the open house with an official unveiling of the name of the press with a plaque dedicated to honour Impact’s founder, Harold “Curly” Dammermann. Visitors to the event were treated to tours by employees wearing t-shirts emblazoned with the words: “Creating New Jobs One Press At A Time.” President John Dammermann is incredibly proud that he has managed to bring the production of his high-end gift wrapping paper back to the USA with the new presses. His core message to his staff and the guests was ‘Made in the USA.’

John Dammermann: “We are so proud to be creating new jobs here at our facility in Memphis with the installation of our two highly automated, gearless central-cylinder presses from KBA-Flexotecnica. These machines from Italy are known worldwide for their superior press engineering and print quality. Today we want to demonstrate our expertise with the new technology at our beautiful facility.”

Steve Korn, director of national and key accounts at KBA North America, praised the successful collaboration during the project phase.

Impact Innovations was founded in 1968 in Clara City, Minnesota. Today, it has two arms to its business: seasonal and commercial. Its seasonal business comprises of decor, paper and fabric products where its expertise in design and product innovation has made Impact the industry leader in decoration for windows. Its commercial division is equally successful. Impact offers a broad range of products and capabilities including merchandising trays, displays, plastic cards and promotional materials. Its seasonal and commercial products can be found in national retailers including, discount, grocery and home improvement stores as well as internationally in Canada, Mexico and South America.

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Counterfeit medicines endanger consumers’ lives, damage manufacturers’ reputations and cause financial damage. With the udaFORMAXX KBA-Metronic has developed a reliable solution enabling the counterfeit-proof coding of pharmaceutical and cosmetic products in small batches.

Worldwide around ten per cent of all medicine sold and 50 per cent traded online is an imitation, and the trend is increasing. At first glance it is often hard to tell if the medicine is fake or the real deal. In the meantime counterfeits look so perfect that traditional inspections and security checks in the pharmacy are no longer enough. Additional security features are crucial.

Stricter regulations from 2017
The EU parliament has recognised the dangers of counterfeit pharmaceutical products and requires that a Europe-wide product number, PPN code, is applied to products from 2017. PPN stands for Pharma-Product-Number and is an expansion of the PZN code currently used in Germany with additional data. Applied to the packaging as a 2D data matrix code the product can be verified using a reading device within the logistic chain and at the pharmacy. Together with other coding and marking, such as expiry dates and batch numbers, traceability, counterfeit protection and information for the patient regarding the shelf life of the medicine are guaranteed. All of this data is expected to be applied in a clear and discreet manner.

Clever coding is essential to make sure that counterfeit medicine does not reach consumers and products with manufacturing defects can be recalled quickly. The EU’s Track & Trace regulation places great importance on seamless traceability by way of clear coding and marking. The necessary printing and scanning at the production line must be promptly implemented, not only due to legal regulations.

However, not every pharmaceutical product is produced in such large quantities that its worth running a fully automatic production line. Economic offline coding for smaller batches
KBA-Metronic’s semi-automatic udaFORMAXX coding solution enables the economic coding of small batches, special products and seasonal and promotional goods. Together with a camera link for inspecting the coding, the corresponding software and an ejection device for misprints, this offline marking system meets the demands of coding pharmaceutical product regulations. Compared to manual solutions, semi-automatic coding with the udaFORMAXX is cost-effective, safe and quick. Operators are able to refill the cartridge without stopping production ensuring interruption-free operation at high speeds.

This versatile offline coding system can be equipped with various printing systems. Thermal inkjet systems (TIJ), betaJET and the laserSYSTEM series from KBA-Metronic have proven themselves time and again when it comes to counterfeit-proof serial coding of medicine. An alternative is the alphaJET series of inkjet printers (CIJ) and hpdSYSTEM hot-foil coding systems for simple jobs without any changing codes.

High print quality with betaJET
The thermal inkjet betaJET offers a razor-sharp printed image even on absorbent surfaces like carton. The udaFORMAXX with integrated betaJET is one of the economical solutions for the pharmaceutical industry when it comes to counterfeit-proofing medicine in small batch sizes. The betaJET prints plain text, codes and logos with a resolution of up to 600 dpi. It prints even the smallest characters reliably without smudging. Thanks to its high resolution, reading devices within the entire logistic chain up to the pharmacy can easily identify encoded data printed on the packaging. It thus guarantees the traceability of the pharmaceutical product and the verifiability of the PPN code. A further benefit of the
Laser coding systems from KBA-Metronic are often integrated into the udaFORMAXX offline coding system and the flexibility of integrated betaJET or laserSYSTEM devices. Frequently changing coding tasks and variable data can be programmed easily on the integrated Labeleditor. Complex labels can be created during job preparation on the PC and sent to the device via a network connection. The package consisting of an offline coding device and customised software is all that is needed to replace manual solutions for small print runs. Track & Trace is thus economically viable also when it comes to small batch sizes.

The udaFORMAXX offline coding system can be seen at drupa 2016 on the KBA stand in hall 16.

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Laser coding and marking of paper, standard pre-printed labels for example, today normally takes place by removing the ink from the top layer of colour. The substrate is thus exposed and a contrast in colour can be seen. A paper’s surface is delicately burnt by the laser beam when it comes to coding directly onto uncoated paper. The coding is brown in colour. The degree of burning can be regulated via the respective laser system’s parameter settings.

**Defined colour removal without burning**

The result is not satisfactory if the laser beam hits the surface of the material to be coded too strongly, too slowly or not in the optimum wavelength. After an intensive testing period, KBA-Metronic has revolutionised the conviction that “laser coding always depends on the substrate”. On the basis of the latest results the coding specialist succeeded in ablating ink in a precise manner from the substrate within a µm range.

Packaging is pre-printed based on customers’ wishes. Space is saved for subsequent coding. Individual product and production data is added when necessary. The new concept of laser coding is that the laser beam does not come into contact with the substrate. The base material is not burned, the choice of base material becomes secondary and when using the correct ink it can even be ignored. If the starting material is pristine white, the marking is also pristine white. The best results achieved with the new procedure until now have been printed darker tones, e.g. black, blue or metallic.

**Laser-reactive pigments change the colour**

Laser systems are increasingly being implemented for variable coding on cardboard, secondary packaging and packaging film. Marking on laser-reactive printing inks or coating permits the contrast desired for the design. Pigments in these special colours, coating or inks change colour after contact with the laser beam. This change in colour only takes place on coated surfaces. The substrate remains undamaged.

Printing companies can chose from water, solvent, oil-based and UV inks. There is thus the perfect solution for every printing process. Laser coding is viable for a raft of materials that were not suitable in the past. Together with renowned manufacturers KBA-Metronic continually works on the optimal coatings, colours and inks for the respective areas of application.

**Laser coding through film**

In direct printing the laser codes the substrate within the patch provided. The coding is more visually appealing when the substrate is coated with a gloss coating or laminate. Laser-reactive pigments react to the protective coating and cause colour changes. No by-products are made during this process rendering suction obsolete.

When it comes to reverse printing the pigmented patch is on the inside of the transparent material, e.g. plastic film. The coding thus shines and is perceived as high quality. Furthermore, it is smudge-free. Publishing houses and lettershops pack their printed products immediately in film or covers. After this a laser applies an address through the film onto laser-sensitive address fields making losing address records when packing or inserting impossible.

KBA-Metronic offers coding and marking devices with different laser technologies from 4W to 200W under the name laserSYSTEM. CO₂ lasers from the company’s laserSYSTEM K series and fibre lasers from its laserSYSTEM F series are suited to laser-sensitive surfaces, direct lasering or coding through film. The so-called film lasers show their strengths especially when it comes to removing the colour of film.

**Offline coding for more flexibility**

The combination of laserSystem and udaFORMAXX code small batches, special products, seasonal and promotional goods cost-effectively and on-demand offline. It is therefore an attractive solution for printing companies, contract packagers and lettershops.

Boasting a connection to a camera for monitoring the coding, the respective software and an ejection device for waste, this offline coding system meets even the strictest requirements and guidelines when it comes to the coding and marking of pharmaceutical products. Compared to manual solutions, semi-automatic coding with an udaFORMAXX is cost effective, safe and fast.

Folding carton, carton blanks, envelopes, single sheets, paper blanks, ISO board, block bottom bags or any other flat-lying materials pass through the udAFORMAXX from pile to pile. A camera lens with a positioning unit guarantees the exact positioning of a product for coding.

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1995: Start of a new era

20 years of MetalStar

The success story of the MetalStar multi-colour metal decorating press began 20 years ago in 1995. With its innovative design, the press from KBA-MetalPrint in Stuttgart defined entirely new standards with regard to productivity and print quality. Where it had previously been necessary to plan several press passes to complete a job with single- and two-colour machines, the new MetalStar unit-type design was now able to print up to six colours in a single pass.

The MetalStar marked the introduction of KBA sheetfed technology in metal decorating. In cooperation with metal decorating specialists Bauer+Kunzi, a multi-colour press was developed based on the earlier KBA-Planeta large-format press series VARIMAT. It was tailored to the specific requirements of the metal decorating industry in terms of performance, economy and quality.

The first four-colour MetalStar press was delivered in August 1995 to Crown Cork & Seal, USA, a renowned global leader in consumer packaging and it has been in use there ever since.

Advantages of unit-type design

The real breakthrough brought to metal decorating by the MetalStar was the switch to the unit-based three-cylinder design principle with double-size impression cylinders and transfer drums. In the past, metal-decorating presses had always used either the five-cylinder tandem principle, or today’s still widespread traditional system where the sheets are transported from unit to unit with the aid of chains and belts (Mailänder principle) and then realigned to side and front lays before each printing unit. The clear advantage of the unit design is that the sheets are transferred directly from one cylinder gripper system to the next. As they are carried through the whole press in a single grip, register-true transport is guaranteed. This provides a pin-sharp dot and extreme register accuracy within the micrometre range, both of which were factors far superior to traditional metal decorating presses. With the precision inking units from KBA, it was possible to print more than four colours wet-in-wet in a single pass for the first time – and that without any loss of quality. This system has been proven time and again over the past decades and has been continually perfected.

The MetalStar was configured with a high-performance stream feeder instead of a single-sheet system. A belt table transports the sheets from the stack to the infeed, where they are aligned with a pneumatic side lay ready for transfer to the first printing unit via a swing gripper system. As the sheets are fed as a stream, they arrive at the infeed at a much slower speed and are only accelerated to full printing speed on the subsequent Vario-Speed feed drum. This enables production speeds of up to 8,000sph.

The MetalStar 2 (later also known as MetalStar PR) was launched in 2002. For the first time it was equipped with printing units taken from large-format KBA Rapida presses which are extremely successful in the field of packaging printing. The MetalStar has been installed worldwide in numerous configurations, right up to eight-colour versions with integrated drying and inline coater towers for UV coatings. The MetalStar 2 also raised the maximum mechanical press speed from 8,000 to 10,000sph, cementing the MetalStar’s reputation as the fastest metal decorating press in the world.

MetalStar 2: High level of automation opens up new possibilities

MetalStar presses feature by far the highest level of automation in metal decorating. The MetalStar 2 (PR) was already equipped with automatic plate changing, automatic format setting, an automatic washing system for rollers, blankets and impression cylinders, and remote setting of the ink and register with comprehensive memory functions via the console.

MetalStar 3: Peak performance in metal decorating

KBA-MetalPrint unveiled the MetalStar 3 at METPACK 2014 under the ban-
Jamestrong in Australia orders longest MetalStar 3

In the fourth quarter of 2015 Australian company Jamestrong Packaging placed an order for the longest MetalStar 3 UV press line with eight colours, dryer and coater from KBA-MetalPrint in Stuttgart.

The press is expected to be installed at the end of 2016. This multi-million dollar investment is the next step in Jamestrong’s plan to become the leading metal decorating company in the southern hemisphere. Managing director John Bigley: “This investment is a giant leap forward in terms of technology and will place Jamestrong at the forefront of the industry. Building upon the metal decorating expertise already gathered at our Milperra plant, it will establish us as market leader in the region. Ultimate quality, shorter lead times, improved flexibility and faster reactions to customer requests help us to secure long-term growth and viability in an increasingly competitive market.” Jamestrong mainly produces cans for infant nutrition products at its plant in Milperra. The new MetalStar 3 line will replace two older presses.

The MetalStar 3 is the latest generation of high-performance presses, offers a host of new features geared to make-ready savings and efficiency for simultaneous automatic plate changing in all printing units. It runs in parallel to other make-ready processes and can be combined with the new feature CleanTronic Synchro parallel automatic washing of the blankets and impression cylinders. Another possibility is DriveTronic SRW simultaneous ink roller washing. In this case, a separate motor enables the inking unit to be driven independently from the rest of the press and permits simultaneous washing of the rollers and blankets. Combined with CleanTronic Synchro it is even able to wash the rollers, blankets and impression cylinders all at the same time – and washing times can be reduced to an absolute minimum.

Together the redesigned ErgoTronic console, Windows-based TouchTronic operating software and One Button Job Change for automatic simultaneous make-ready processes ensure that make-ready times on the MetalStar 3 are significantly shorter than ever before.

In future, too, KBA-MetalPrint will be driving innovation in its role as technology leader in metal decorating enabling customers to remain profitable and efficient.

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Rapida 106 replaces three presses at Amway

A six-colour Rapida 106 with UV kit and triple delivery extension has been in operation at Amway’s headquarters since last year. The press at the world’s largest direct selling business replaces three presses from a different manufacturer and enhances productivity significantly.

Amway is a $10.8 billion (€9.8bn) direct selling business based in Ada, Michigan, USA. Top-selling brands for Amway are Nutrilite™ dietary supplements, Artistry™ skincare and colour cosmetics and eSpring™ water treatment systems – all sold exclusively by Amway Business Owners. Global sales in 2014 made Amway the #1 direct selling business in the world, according to the Direct Selling News 2015 Global 100.

The new Rapida 106 meets the high expectations of Amway by increasing the company’s packaging output for its family of brands and creating unconventional eye-catching designs for its popular products. It supports the company’s continued growth with its versatility by printing all of its internal marketing materials including instruction materials, brochures and pamphlets.

After performing a thorough vetting process researching all of the sheetfed press manufacturers Amway opted for the Rapida 106 thanks to its flexibility, high level of automation and top printing speed of 20,000sph.

Third Rapida for Royal Paper Box in California

Having recently celebrated its 75th year in business, Royal Paper Box, a leading Montebello, California, folding carton converter, is maintaining its dedication to quality and efficiency by adding to its pressroom arsenal: a third six-colour Rapida 106 plus coater, inline quality control and UV kit. The firm caters to a globally diverse customer base including high-end cosmetics and demanding bio-medical packaging.

“We feel the addition of a third Rapida significantly enhances and complements our pressroom,” says Jim Hodges, president of Royal Paper Box. “Our success over these 75 years has been built on our commitment to our customers and continuing to invest in new technology. We’re constantly seeking to deliver the best work in the most efficient manner. We have a sterling reputation for on-time delivery and consistent quality, order after order.”

Founded in 1940, Royal Paper Box Company has been an industry leading provider of folding carton packaging solutions that have met the needs of its globally diverse customer base. Hodges’ father, Clary, along with a group of investors and employees, bought out the founder in 1956. Jim Hodges joined the company after serving in the Marines. Together the father-son team expanded the company and today it sits in a 16,000m² (172,000ft²) facility with 210 employees all under one roof.
GAM expands capacities with seven-colour Rapida 106

In 2015 longstanding KBA user Grafica Artistica Meridionale (GAM) in Roccapiemonte near Salerno, Italy, received a new Rapida 106 with seven printing units and coater. It joins two six-colour presses with twin coaters and contributes to a significant capacity expansion.

The new Rapida 106 is the packaging company’s seventh sheetfed offset press from KBA since 1988. Its equipment includes a board and label package, automatic plate changing, inking unit temperature control, CleanTronic washing systems and energy-saving VariDryBLUE dryers.

Grafica Artistica Meridionale has been the market leader in offset printing in southern Italy for 40 years. Its production activities focus on food packaging including labels, but the company also prints catalogues, brochures and commercial printwork.

The company’s full-service offerings range from graphic design, packaging development, printing up to finishing, fitting and converting.

11th KBA Cortina User Workshop in Einbeck

In the field of printing, the users and supplier industry of the waterless KBA Cortina newspaper press are known to be among the most active and successful user groups. As host, ContiTech Elastomer Coatings welcomed the 80 participants from Belgium, Denmark, Dubai, Finland, France, Germany, the Netherlands, Norway, Sweden and Switzerland to the 11th Cortina User Workshop at the motorcycle and car museum in Einbeck, Lower Saxony, in November.

The focus of the workshop was on exchanging opinions on the choice of material and tests on the Cortina. The participants also worked on common strategies to develop and market waterless offset newspaper printing. The highlight of the event was the approval of a second waterless plate for coldset printing which is available from Presstek.

The metal-based blankets developed for waterless offset printing are produced by ContiTech before being sold worldwide. “The Cortina process provides a significant increase in quality, flexibility, and productivity, which gives real advantages over the competition,” says Peter Benz, project manager at KBA.

These sentiments are echoed by Matthias Tietz, managing director of Rheinisch-Bergischen Druckerei: “We’ve seen a noticeable increase in quality, flexibility, and productivity, which gives real advantages over the competition,” says Peter Benz, project manager at KBA.

The next KBA Cortina Workshop is planned for 21 and 22 September 2016 in the Nordsee printing center of the Nordsee Zeitung newspaper in Bremerhaven, Germany.
High-Performance Metal Decorator of the Year 2015

The “High-Performance Metal Decorator of the Year 2015” award established by KBA-MetalPrint was given to Spanish customer Litografía Alavesa, better known to the branch as LITALSA.

The prize honours customers who use KBA-MetalPrint’s products to demonstrate achievement beyond the scope of everyday performance in the field of metal decorating. There were several excellent companies on the list of nominees, but this time the award went to LITALSA. The world’s first MetalStar 3 with DriveTronic SPC (Simultaneous Plate Change) dedicated plate-cylinder drives for fast job changing went live at LITALSA in 2015. The drive technology changes all plates on a six-colour press simultaneously in only 100 seconds. The blankets and impression cylinders can be washed at the same time with Clean-Tronic Synchro.

The award honours the company’s role as pioneer of the use of new technologies for future demands in metal decorating especially considering as increasingly smaller runs have to be produced economically in ever shorter time frames. In combination with excellently trained operators, this MetalStar 3 configuration achieves the fastest job changeovers of any press on the market. LITALSA can thus rightly call itself as the makeready world champion in metal decorating. Managing director Juan Inchausti confirms: “With the installation of the most modern metal decorating press on the market, we have further enhanced the competitiveness of Litografía Alavesa.”

Founded in 1972, the family-run company has grown constantly over the past years. Regular investments in new technology have cemented LITALSA’s reputation as one of the world’s most efficient metal decorators. KBA-MetalPrint and LITALSA have enjoyed a longstanding partnership which is reflected in the company’s machinery base. From a tandem coating line, via a seven-colour MetalStar 2 through to a regenerative thermal air purification system, a broad cross-section of the KBA-MetalPrint portfolio is represented in LITALSA’s production halls.

Giant Rapida for Eurobusiness in Romania

Eurobusiness Group located on the outskirts of Bucharest will receive a six-colour Rapida 164 with coater and extended delivery in June 2016. This is Romania’s first giant Rapida. Eurobusiness Group is one of the country’s leading printing companies. It is currently active in the field of commercial printing, but aims to expand more into packaging printing with its new Rapida 164.

Although Eurobusiness Group was only founded after the millennium, it is very successful thanks to its experienced team of managers and staff. The company’s partly longstanding customers value its high-quality and often innovative products. It has a cutting-edge, fully integrated infrastructure on an area spanning 10,000m² (107,639ft²). Along with four sheetfed offset presses, including a Rapida 104 and a Rapida 105, plus a coldset press from KBA, the company also has laminating and UV finishing kit as well as cutting, folding and binding technology for magazines, soft and hardcover books.

The new Rapida 164 will be equipped with a CX board package for carton printing, a height-adjustable nonstop roller facility and raised by 630mm (24.8in). The press’ high level of automation including automatic plate changers, Clean-Tronic Multi washing systems and many other components minimise makeready and ensure efficient production. Environmentally friendly VariDry® IR/TA drying systems are expected to equip the triple delivery extension. QualiTronic ColorControl, ErgoTronic Lab, Ergo-Tronic PSO-Match and ErgoTronic ACR deliver consistent inline quality assurance.
Six-month open-heart surgery

PHS firms up 18-year-old Ecoman in Soltau for the future

18 years old – finally of age. For many young people this is when life really starts. However, for a MAN Ecoman press this is a critical age and time for an extensive refurbishment.

Fired up in 1997, the newspaper press at Mundschenk Druck- und Vertriebsgesellschaft in Soltau, Germany, continued to do its duty. Nevertheless, it had to be updated to ensure that this remained the case in future. Staff from PrintHouseService (PHS) began working on this press in July 2015. A summary of the job in hand was “upgrading the drives in the control system as well as the unit computers in a folder and two H-type printing towers, substituting existing Pecom consoles with cutting-edge desks and touchscreens, and replacing EAE controls and a Siemens belt drive in reelstands one and two with solutions in line with industry standards.”

One could also say: The heart of the Böhme-Zeitung newspaper was firmed up for the future to meet rising demands in terms of print quality. Its readers wish to continue reading their Böhme-Zeitung in paper form and expect the latest technology to deliver a top print quality.

Precision and a good mood even when pressed for time

The specialists from PHS worked on updating the press from July 2015 until New Year 2015/16. They exchanged worn parts and replaced older electronic components with new cutting-edge ones. Along with technical know-how and expertise, they also had to demonstrate artistic agility to reach inside the 17m-long (55.7ft), 3.5m-wide (11.4ft) and up to 10m-high (32.8ft) press in Berliner format. All this had to be done within fixed time constraints. The technicians had to stop working every day on time as production took place during the evenings and at night ensuring that the newspaper was printed and delivered in its usual quality on time.

In the meantime the work has been successfully completed and the ECOMAN has been firmed up for the future.

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