

New technologies, renewed confidence

## Print bounces back



During Drupa, newspaper printers had the chance to attend a production run on the world's first triple-width newspaper press, a 6/2 Commander brought on stream by Tamedia in Zurich a few weeks earlier

**A**dvertisers, printers and their suppliers look back on three years fraught with challenges. Among the media the overall picture has been defined by glacial demand, a decline in prices driven by fierce competition, mounting losses leading to staff redundancies and a growing number of bankruptcies.

The raft of innovations unveiled and the volume of contracts inked at Drupa 2004 have got the industry buzzing again. Although this is a far cry from the unbridled euphoria fuelled by the dotcom boom, the outlook for print is suddenly much brighter. It is up to us to make it happen.

Klaus Schmidt



Our new-generation Rapida 105, one of the many attractions on our stand at Drupa 2004, is winning the hearts and minds of male and female printers alike, among them Romy Schumann, who operates one at the Rob. Leunis & Chapman Group (Colorpack) in Berlin

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# All systems go!



Albrecht Bolza-Schünemann,  
president of Koenig & Bauer

The millennium Drupa in Düsseldorf four years ago marked the 50<sup>th</sup> anniversary of the first world trade fair for printing and paper. The industry was on a roll and exhibitors vied with each other in the frequency and speed at which they snapped up new orders and announced new performance records. Since then, the economy in many parts of the world has changed dramatically, and with it the situation in the print industry. This in turn has impacted on suppliers like KBA. Which is why, despite intensive preparation, we headed for Düsseldorf at the beginning of May with decidedly mixed feelings. Every day we checked visitor numbers and totted up the contracts we had inked.

This year, with attendance figures approaching the 400,000 mark, well over half from abroad, Drupa demonstrated anew its unique standing as the single genuinely international showcase for our industry. In comparison to 2000 the volume of visitors from Asia more than doubled, reflecting the geographical changes that have taken place in the business. Drupa exceeded the expectations of just about all the 1,800-plus companies exhibiting.

In the four-year countdown we systematically pursued an expanded base of technological innovations and new products. As a result we boasted a broader and more advanced range of equipment than any other exhibitor at the show, from 16-page commercial web offset to rotogravure presses for a web width of 4.32m (170"), from single-width to triple-width newspaper presses and from compact SRA3 to gigantic size 9 sheetfed offset presses, the biggest world-wide. All of them were either upgrades or new launches. Judging by the market response and the volume of sales booked, this diversification strategy has been a resounding success.

The emergence of new media over the past decade, and their impact on print markets, have posed a challenge to which the industry has responded with vigour and perspicacity, embracing the benefits and exploiting the potential. Nowadays, it is hard to imagine a modern printing plant without an array of IT aids. E-phobia has given way to a healthy self-assurance and confidence in the strengths of print on paper, and this was clearly evident in Düsseldorf.

The downturn we have experienced in recent years seems to have bottomed out. Since summer 2003 KBA has booked a succession of orders which are keeping our production facilities humming. Many of our customers are thriving, having ridden out the recession by upgrading their equipment, streamlining their internal structures and launching new products. We shall continue to focus on standardising production sequences and delivering high-quality, versatile and cost-effective production tools to promote further growth.

Yours,

*A. Bolza-Schünemann*



*Print makes a comeback*

## A super Drupa after all

*The number of visitors and the volume of business transacted at the world's biggest print media trade fair confounded the subdued pre-show expectations. KBA certainly had plenty of reasons to celebrate. Thanks to an array of new products and innovations we landed more contracts than at the record millennium event. Orders for sheetfed offset presses, which have seen strong growth for many years, were more than twice as high as at the last Drupa, while our web press division booked a succession of orders for commercial, newspaper and gravure presses.*

**A**lthough many printing plants and their suppliers are still suffering the effects of the longest economic and advertising downturn in recent decades, with recovery particularly slow in Europe, print made a sweeping comeback in Düsseldorf. Fresh ideas and innovative applications have galvanised the industry, transforming wide-

spread resignation into renewed confidence and entrepreneurial zest. There is every reason to hope that this will revive demand in Europe, Latin America and other lacklustre markets.

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*Print has a future –  
but we must work for it*

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KBA's message at Drupa, enunciated by president and CEO Albrecht Bolza-Schünemann at the opening press conference, was crystal clear: "The era of print as an art is well and truly past, and print media production must be industrialised in the sense of conversion into an automated process. Technological advances are vital for print's survival: it is no use adopting JDF and new business models if the underlying technology is outdated and labour-intensive. The industry must rediscover its strengths and redefine its role with new





confidence, be more receptive towards genuine innovation and respond more sensitively to changes in media consumption and communication.”

### *Walking the talk*

The group banner, “*People and Print: Driving Advances – Together*”, underscored KBA’s optimistic strategy for the long term based on launching a continuum of new products, processes and applications developed and promoted in alliance with top industry players (ABB, Akzo Nobel, Bäumler, ContiTech, Creo, EAE, Epple, Hiflex, Huber, HumanEyes, Marks-3zet, Müller Martini, Presstek, Rogler, Siemens, Sun Chemical and Toray, to name but a few).

### *High-tech showcase for sheetfed offset*

KBA was the only exhibitor at the show to present a complete range of new sheetfed offset presses aimed at enhancing



*Art meets print: taking as his theme “In the Realm of Colours”, Hundertwasser master student Horst Kordes decorated the seven printing-unit covers on a new Rapida 105 with images drawn from the five continents*

the cost-efficiency and flexibility of print production across the board, from SRA3 to VLF. To underpin our role as a mover and shaker in sheetfed technology, we laid claim to the world’s biggest sheetfed offset press (Rapida 205), the most versatile size 7 to B2 presses at the show (Rapida 162, Rapida 105, Rapida 74), the most innovative B3 press on the market (Genius 52), the world’s longest B1 press (Rapida 105 universal “EffectPress” at Meinke Print Media Partner in Neuss near Düsseldorf), plus world

premieres like the Rapida 74 G™ (GravufLOW) waterless, keyless unit-type press exhibited by alliance partners Marks-3zet. A raft of new features, some of them unique (shaftless feeders for medium- to large-format presses, suction-lay-free infeed on the new 18,000sph Rapida 105, Qualitronic II inline sheet inspection system etc), highlighted the rapid pace at which our sheetfed offset division is driving innovation.

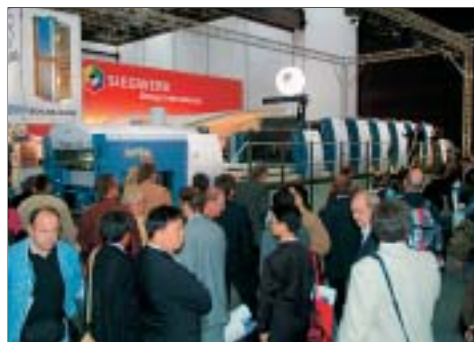
Although space limitations meant we could only exhibit a single printing unit of our new

superlarge Rapida 205, we organised tours to a new installation at teNeues in Kempen. Booked out for the duration of the show, these tours have resulted in further orders.

### *Reaping the rewards of technological advances*

The fact that waterless pioneers Marks-3zet and Toray decided to exhibit KBA presses on their stands, in the form of the innovative Genius 52 and unique new Rapida 74 G, indicates where they perceive genuinely new ideas are to be found for taking the intuition out of sheetfed offset. It also highlights the way KBA promotes the union of new press technologies with new consumables (eg hybrid finishing, direct offset on corrugated, printing on plastics with oxidative inks on the 74 Karat, ecological offset) in order to power technological advances.

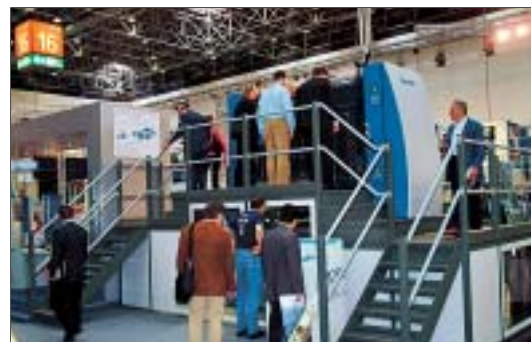
And the market willingly rewards such advances provided they make economic



*The 14,000sph Rapida 162, which has the makeready times of a B1 press, printed on paper and board*



*A treat for poster and display printers: seeing the new Rapida 205 in action at teNeues in Kempen*



*A VLF Rapida 205 printing unit was much admired*



*Our new Rapida 74 has a maximum rated output 18,000sph in straight production and 15,000sph in perfecting mode*



*Our sleek new Rapida 105 sets the benchmark in B1 with a maximum rated output of 18,000sph and an array of unique features*



*The Rapida 105 universal, an all-round press available in a variety of configurations, will be retained in our product range*





The Rapida 74 G™ with Gravuflow™ inking units is the first press of its kind worldwide to combine waterless offset technology with a unit-type design



The 14-unit Rapida 105 universal ("EffectPress") at Meinke Print Media Partner in Neuss proved a magnet for sheetfed printers (photo: VALUE)

sense. Over the past twelve years we have posted a six-fold increase in sheetfed offset sales, laying the foundations for continuous growth in market share. Because our sheetfed division does not depend on high-volume sales of mass-produced goods it weathered the recent industry downturn relatively unscathed. Contracts

booked before, during and after Drupa will contribute to double-digit growth in our sheetfed offset sales for the current year.

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*Exploiting potential in commercial web offset*

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The Compacta 217 high-performance 16-page commercial web offset press exhibited



Our high-tech Compacta 217 sailed through automatic reel and plate changes, not to mention flying imprint changes, to produce a 20-page brochure in several different languages



Gravure printers could check out our cutting-edge control technology, which at Drupa was linked online to a TR10B rotogravure press line at Axel Springer in Ahrensburg

at Drupa incorporated a string of improvements to established features (minigaps, Drivetronic totally shaftless drives, perfect imprinting with standard printing units, automated gripper and pin folders, automatic and semi-automatic plate changing, superstructures based on gravure know-how etc). But there is still plenty of potential for enhancing cost efficiency and expanding the range of applications in commercial web offset, and we are making a concerted effort to shake up this highly competitive market with new advances and technologies.

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*Trendsetter in publication rotogravure*

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Publication rotogravure in Europe and North America is dominated by a small number of major global players. At Drupa, KBA staked its claim to the pole position in this technology with two reels 4.32m (171") wide. Webs of this size will be run on two super-wide TR12B press lines we are currently shipping to maul-belser in Nuremberg (see page 41). Each of these presses has a production speed of 60,000 cylinder revolutions per hour – equivalent to a web speed of 15.2mps or 2,992fpm – and a maximum capacity of 112 A4 pages, enabling it to pump out 6.7 million four-colour A4 pages per hour. That is the equivalent of over 220,000m<sup>2</sup> (2.38 million square feet!) of print, or seven times the output of our new high-speed 16-page Compacta 217. KBA demonstrated the logical interaction of

print and e-media via an online link from a new gravure console on the KBA stand to the console of a TR10B press at Axel Springer's printing plant in Ahrensburg (see also pp 42-43).

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*Cortina and 6/2 Commander: a new approach to newspaper production*

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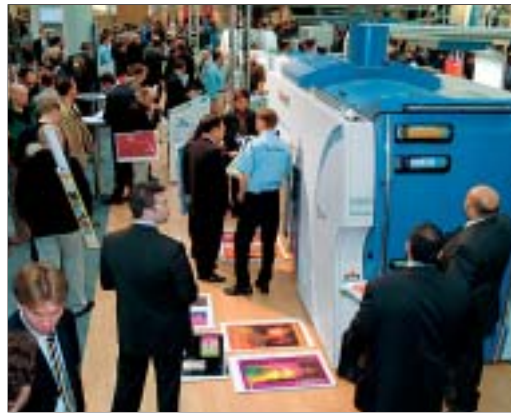
The uncrowned star of Drupa 2000, our waterless, keyless Cortina mini tower press, is now in operation at printing plants in Germany, the Netherlands and Belgium. Even though it did not feature at Drupa, this benchmark innovation was a focus of interest among the surprisingly large number of newspaper printers who attended the show. The beta press, which has been turning in a superb performance in Offenburg for nearly two years, has now been retrofitted with automatic plate changers and minigap blanket cylinders, further enhancing the quality attainable in semi-commercial production.

The automatic plate changers on the Cortina can be fed with new plates while the current edition is still running, and the used plates disposed of without stopping the press. The plate change itself takes less than 100 seconds for individual plates, all 64 plates in a four-high tower or all 192 plates in a 48pp section. This ultra-short changing time was demonstrated at Drupa on a working model of our new automatic plate changer, **PlateTronic A**. Prospects could also see a dem-

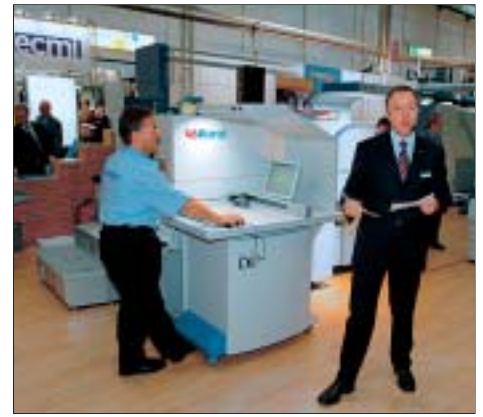




*Our compact, innovative B3 press, the Genius 52, could be seen in three different halls printing paper, board and plastic*



*3D digital photos supplied by HumanEyes were printed on film in our short-run factory by a 74 Karat DI offset press, which also perfect printed with no pile turning*



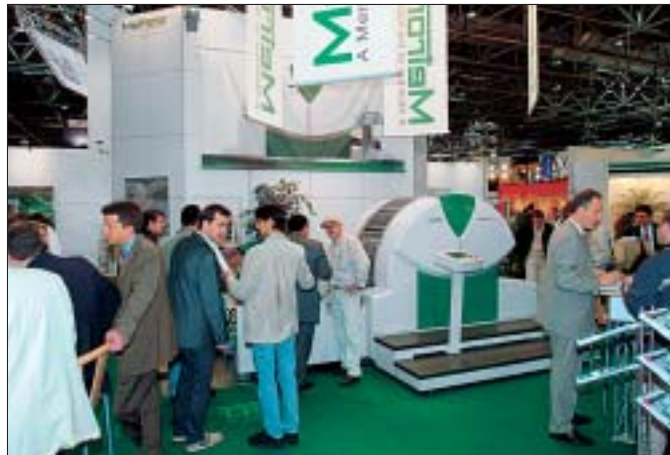
*Small-format DI offset "Power Mix": the 46 Karat, Eppler's aniva® inks and Konica Minolta's CF3102 laser printer*

onstration on the Cortina at Reiff Zeitungsdruck in Offenburg.

### *Innovative press giants in Zurich*

A few months ago the first two sections of a 6/2 Commander press for a web width of 1,920mm (75") came on stream at Tamedia in Zurich. During Drupa a number of newspaper professionals from overseas made the round trip to Switzerland to see the world's first triple-width press in action. This gigantic installation, with a total of 16 towers, 16 reelstands and five jaw folders, can print 48-page broadsheet newspapers on just two towers instead of the three necessary with a 4/2 press. Fewer printing towers and reelstands mean not only considerable savings in capital outlay and ongoing energy, space and labour costs, but also a higher net production output through having fewer webs. The 6/2 Commander in Zurich encompasses a string of new features including automatic roller locks and automatic web tension control. The Swiss installation is also the first to incorporate Pastomat RC 1500 reelstands for a diameter reel of 1,500mm (59"). This cuts the frequency of reel changes, and the associated workload, by around one-third.

Demos of automatic roller locks, which significantly reduce maintenance and promote uniformly optimum printing conditions, were conducted on a working model of our **RollerTronic**.



*KBA subsidiary Metronic presented its Genius 52 UV press for plastic and its univerSYS automatic system for transporting, personalising and finishing plastic cards*



*On our stand we installed a JDF workflow embracing a complete Creo prepress (including the new Brisque 5) plus proprietary software supplied by Hiflex and Rogler*

### *Special presses for niche markets*

KBA is not only a major player in core print markets but has also built up an extraordinarily extensive product range addressing diverse niche markets which rarely enter the spotlight. This year some of them even featured at Drupa, or at parallel events.

In early May, for example, our Swiss subsidiary **KBA-GIORI**, which was also represented on our stand in Düsseldorf, launched new banknote and security printing systems at a four-week open house entitled "Banknote Horizons" (see page 12).

Another KBA subsidiary, **Bauer+Kunzi** based in Ditzingen near Stuttgart, demonstrated its metal-decorating expertise on the KBA stand with MetalStar 2 presses based on large-format Rapidas.

In hall 11 our subsidiary **Metronic** showed a Genius 52 UV press for printing plastic cards and film alongside a **univerSYS** automatic card transport and personalisation system, as a brief insight into its broad product range in the field of UV offset and ID labelling technologies (inkjet, laser, hot stamping etc).

It will be interesting to see what the next Drupa in 2008 has in store.

Klaus Schmidt  
Klaus.Schmidt@kba-print.de



Radebeul showroom completely refurbished

# Apt setting for cutting-edge technology

The re-opening of the customer centre for pre-press, digital offset and small format at our Radebeul facility at the beginning of the year was followed by a complete refurbishment of the customer demonstration showroom and the installation of the Rapida sheetfed offset presses exhibited on our stand at Drupa.



Hall 2 of our refurbished showroom in Radebeul. Front left: a Rapida 105 five-colour coater press with Qualitronic II sheet inspection. At the rear a Rapida 74 five-colour. Front right: a Rapida 74 G<sup>TM</sup> (GravufLOW<sup>TM</sup>) with coater and corona unit. Behind it a Rapida 105 six-colour carton press erected on a plinth

The showroom at our facility near Dresden now offers our many sheetfed offset customers from all over the world the opportunity to conduct print tests using the most advanced technology on the market, to attend information updates and discuss individual projects in an even more spacious and congenial environment.

## Complete printing and finishing lines

Whether you specialise in printing commercials, books, plastics or packaging, the six Rapida presses, from half- to large format, in the demonstration showroom

are configured and equipped to address the printing and finishing needs in your specific market. All the presses are networked with each other and with the pre-press/JDF centre in the adjacent building and embedded in a universal JDF workflow based on technoLOGIC software supplied by Rogler.

The box on the right lists the various presses now available for demonstrations, together with their key features. Rajko Geissler and his crew look forward to placing this cutting-edge technology at your disposal.

Klaus Schmidt  
Klaus.Schmidt@kba-print.de



Our new keyless Rapida 74 G<sup>TM</sup>, which features in our demonstration showroom as a four-colour coater version with a corona unit, can print on paper, board and plastic film

## Demonstration presses in hall 1

### Rapida 105-10+perfector (720 x 1050mm)

- Automatic plate changing
- Automatically convertible perfecting
- Shaftless feeder, suction-lay-free infeed
- Console-controlled chilling device
- Optional lightweight/CX packages (60 - 700gsm)
- Console-controlled ink pumping
- Washing system (impression/blanket cylinders, rollers)
- Eco-package
- ACR control
- Densitronic S
- Logotronic Professional, JDFLink

### Rapida 142-6+coater (1020 x 1420mm)

- Automatic plate changing
- Shaftless feeder with automatic nonstop facility
- Board/lightweight capability
- Hybrid package
- Optional Wash & Print package
- Coater with doctor blade
- Dispersion and UV coating feed
- Console-linked ink pumping
- Double delivery extension with dryers
- ACS (Air Clean System) delivery
- ACR control
- Densitronic S
- Logotronic Professional, JDFLink

## Demonstration presses in hall 2

### Rapida 74-5+coater+CX (520 x 740mm)

- Automatic plate changing
- 1mm max. board capability
- Film/plastic package
- Hybrid and ecopackage
- Optional Wash & Print package
- Impression-cylinder washing
- Anilox coater with pumping system
- Double delivery extension with dryers
- ACS delivery
- ACR control
- Densitronic S
- Logotronic Professional, JDFLink

### Rapida 74 G-4+coater+corona+CX (502 x 740mm)

- Semi-automatic plate changing
- Keyless inking units for standard and oxidative film inks
- Film and plastic package
- Corona unit for film
- 1mm max. board capability
- Impression-cylinder washing
- Anilox coater with pumping system
- Double delivery extension with dryers
- ACS delivery
- Logotronic Professional, JDFLink

### Rapida 105-5+coater (720 x 1050mm)

- Automatic plate changing
- Shaftless feeder with automatic nonstop facility
- 1.2mm max. board capability
- Lightweight package
- Hybrid and eco-package
- Optional Wash & Print package
- Anilox coater with pumping system
- Double delivery extension with dryers
- ACS delivery
- Qualitronic II inline sheet inspection
- ACR control
- Densitronic S
- Logotronic Professional, JDFLink

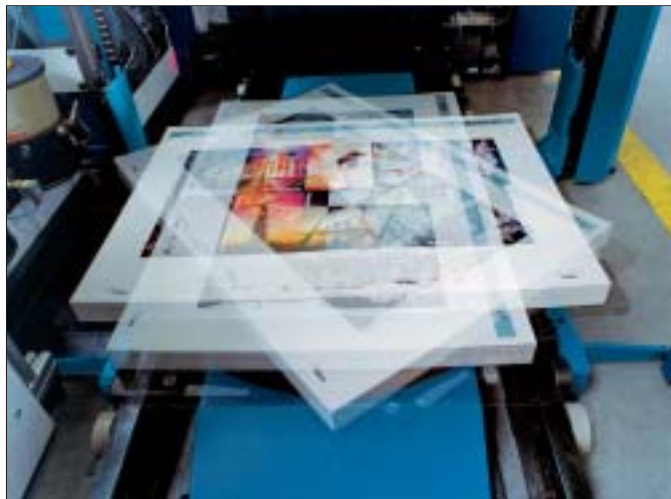
### Rapida 105-6+coater+CX (720 x 1050mm)

- Automatic plate changing
- Shaftless feeder with automatic nonstop facility
- 1.2mm max. board capability
- 450mm plinth
- Hybrid and eco-package
- Optional Wash & Print package
- Baldwin washing system
- Anilox coater with pumping system
- Double delivery extension with dryers
- ACS delivery
- ACR control
- Densitronic Basic
- Logotronic Professional, JDFLink

The intelligent way to perfect print

# 74 Karat – the high-speed short-run perfector

With the 74 Karat, the printed pile need only be rotated 180° on a horizontal plane prior to the second pass: there is no need to turn it over. So short runs of work-and-turn jobs can be printed fast and cost-effectively.



An innovative press design and automatic pile turntable make the 74 Karat an exceptionally cost-effective "perfector" for short-run work

On the KBA stand at Drupa 2004 we demonstrated an automatic pile turntable for the 74 Karat. Here we explain how it functions and the cost savings it can deliver.

## The benefits of a compact design

In sharp contrast to conventional unit-type presses for multicolour production, the 74 Karat is configured with the feeder and delivery located one behind the other at one end of the press and the four inking units one above the other at the other end. This design has a number of major advantages.

The stream feeder on the 74 Karat feeds the sheets onto the

feed table face down. They are then printed on the underside, but are output to the delivery pile with the printed side facing up. So in effect the press has a built-in perfecting facility.

As a result the sheets already have the correct orientation for a second pass. All that remains to be done is to turn the pile around to bring the leading edge up to the front lays again. This eliminates the need for a gripper margin. And because the leading edge of the sheet is the same for both passes, there is no risk of register differences between the recto and verso print due to imprecise sheet trimming.

## Second pass possible after just 2 1/2 minutes

To minimise the time and labour input needed to turn the pile we offer an optional automatic turntable specifically engineered for the 74 Karat. Where a work-and-turn print job (eg four-page flyer) does not entail re-imaging of the plates, the sheets can be ready for the second pass in just 2 1/2 minutes with the aid of the turntable.

## Automated sequence dispenses with manual intervention

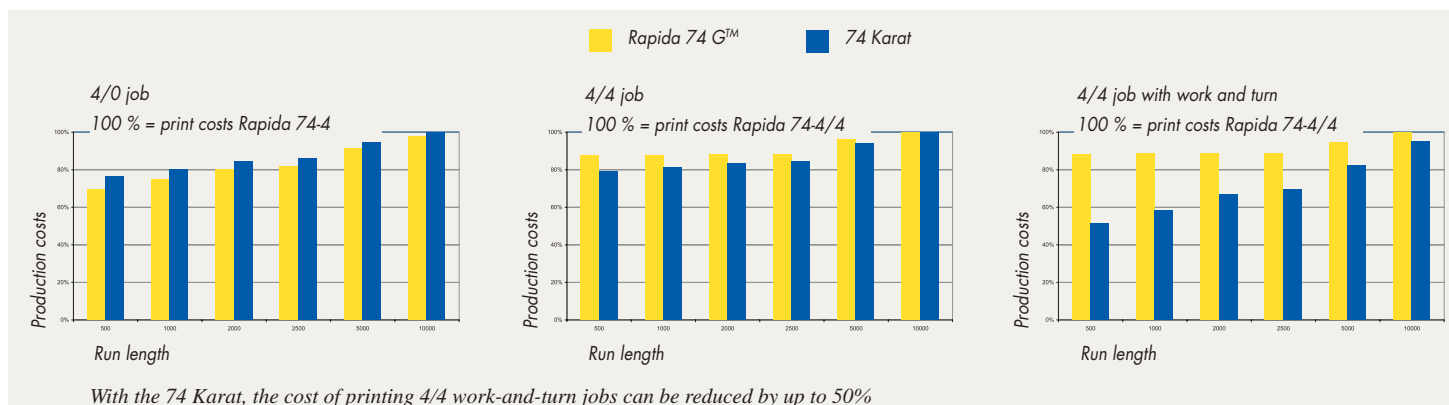
If a water-based coating is applied to the sheets, they are already dry when they hit the delivery pile. The empty feeder pallet withdraws from the press. The delivery pallet with the recto-printed sheets is lowered onto the turntable, rotated 180° and subsequently guided ready aligned to the infeed by a roller conveyor. Pile acceleration is carefully defined and controlled during both rotation and transport to the feeder, to maintain precise alignment. Meanwhile the empty pallet is guided automatically to the delivery. There is no need for manual pile turning in front of the press with a pallet truck.

## More cost-effective than lengthy perfector

Turning the sheet within the printing unit enables the 74 Karat to print short runs faster and more economically than a lengthy eight-colour unit-type perfecting press. The charts below show how a 74 Karat with automatic pile turner can reduce the cost of various print jobs.

Although a moderate cost saving of up to 20% can be achieved with the 74 Karat when straight printing 4/0 or 4/4 jobs with re-imaging, once work and turn comes into play, in this example 4/4, the 74 Karat really demonstrates its edge by delivering savings of up to 50%.

Mike Engelhardt  
Mike.Engelhardt@kba-planeta.de





46 Karat with aniva® and Konica Minolta at Laser Litho4

# Waterless power mix in Drupa city



This intriguing headline has nothing to do with thirsty mag-nates, desert utilities or fitness-boosting energy drinks, but an innovative strategy for maximising quality in small-format digital offset. And one man putting it to the test is Ulrich Steiner, managing partner and director of Laser Litho4 in Düsseldorf, home of Drupa.



Laser Litho4 MD Ulrich Steiner and his press operator Andreas Breitenstein examining a printed sheet off the 46 Karat

**L**aser Litho4 has stayed ahead of the curve ever since it was founded in 1978 with the aim of utilising laser technology, at that time still in its infancy. Its first piece of kit, a Hell Chromagraph DC 300 electronic colour scanner, brought a big improvement in pre-press quality. It was later followed by a second DC 300 plus two Hell Chromacom systems, as Laser Litho4 continued to set quality benchmarks with cutting-edge technology.

## New formula, proven philosophy

It has remained true to this philosophy ever since, recently adopting a new formula for success: "Waterless power mix" represents a highly effective combination of waterless offset with the 46 Karat and

aniva® inks from Epplé, on-press digital plate imaging with Presstek's ProFire™, colour management with software supplied by Trutt Management Service and proofing with Konica Minolta's CF3102.

This awesome armoury has made photographic-quality image reproduction in sheetfed offset a routine occurrence at Laser Litho4. It offers the following benefits:

## Waterless printing

The 46 Karat waterless offset press for a 460 x 340mm (13 1/4" x 18") sheet has a maximum production output of 7,000 sheets per hour. Its ultra-compact design, with inking units fanning out in a V from the common impression cylinder, means that all four colours can be printed in absolute regis-



The aniva® colour scale for waterless offset. The aniva® inks supplied by Epplé are highly pigmented and include a novel vegetable-based binding agent



Offset printer Andreas Breitenstein measuring the colour density on the sheet at the 46 Karat

ter with no gripper transfers. Waterless printing already addresses the emerging shift towards more environmentally-friendly print production because it entails no volatile organic compounds (VOCs) or chemicals. Since there is no dampening solution to contaminate the inks, their rheological properties remain unimpaired when they make contact with the paper – another factor promoting a photographic-quality image.

## On-press imaging

The ProFire chemistry-free plate imaging system is another key element. The lasers, electronics and motion controls are fitted in a single compact unit. Imaging takes just 4 1/2 minutes at 2,540dpi, plate cleaning another 4 minutes. The plates used, process-free PEARLdry Plus, differ from conventional wet offset plates in that the image areas are deeper than the ink-repellent silicone surface layer, so more ink is transferred to the paper for any given area. The result: brilliant colours and rich contrasts.

## Aniva inks

The aniva four-colour ink series was specially developed by Epplé Druckfarben for offset print production. The high-pigment formulation, in conjunction with a specialised technique for image-data separation, supports a much larger



colour gamut than its conventional counterparts. It deviates from the European colour scale defined in DIN 16539, complying with DIN ISO 2846-1.

Using aniva inks modified for waterless, Laser Litho4 works at densities equivalent to a photographic print, namely 1.9 for cyan, 1.8 for magenta, 1.7 for yellow and 2.4 for black. On coated stock this produces a striking, high-contrast image with ultra-fine colour nuances which can otherwise only be achieved with additional spot colours. The inks contain no mineral oil, dry rapidly and are rub- and scratch-resistant.

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#### *Total colour management*

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Not surprisingly, Laser Litho4 has become highly proficient in total colour management, mastering specialist image-data separation, modified colour profiles and press/proofer calibration with equal prowess. All the data can be evaluated, measured and controlled. KBA offers additional support in the form of an optional aniva package complete with an instruction manual and

comprehensive on-site training. Aniva software can also be supplied, together with a standardisation test forme for checking and adjusting the relevant operating parameters.

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#### *Konica Minolta proofs*

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The final link in the "Power Mix" chain, the Konica Minolta CF3102, is a toner-based copier system with a maximum rated output of 31 colour pages per minute. It enables Laser Litho4 not only to produce proofs with an aniva colour

*Samples printed in waterless offset on the 46 Karat using aniva inks*



profile but also to handle ultra-short print runs extremely cost-effectively. The match between a proof off the CF3102 and a production print off the 46 Karat is outstanding, though the print, being waterless offset, is naturally that much more vivid, more brilliant and displays a sharper contrast.

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#### *User verdict*

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Laser Litho4's strategy is clearly a resounding success. Prior to taking the new kit on board the company scrutinised a number of other toner- and inkjet-based digital printing systems. However, they proved to be too inflexible in the range of substrates they could handle and too costly in terms of toner and ink for runs of just a few hundred sheets or less. The print quality also left a lot to be desired.

For Ulrich Steiner, the biggest advantage of toner and inkjet systems – their ability to deliver personalised prints – failed to outweigh the manifold disadvantages. "There is absolutely no doubt in my mind that the "Power Mix" package we installed was the perfect choice for printing short-run colour in photographic quality. And if a client doesn't want to take my word for it, I just show him some prints."

*steiner@laser-litho4.de  
Mike.Engelhardt@kba-planeta.de*



*Konica Minolta's CF3102 colour office system is an integral component of the "Power Mix" package*

*The control console of the 46 Karat encompasses a densitometer (PDS-E) for rapid colour monitoring and an Auto Print system for fast, automated job changes*

*Laser Litho4 has implemented total colour management. All the data can be evaluated, measured and controlled*




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[www.laser-litho4.de](http://www.laser-litho4.de)

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**L**eipzig's city centre, lovingly restored to its former glory, gives a deceptively prosperous impression of the east German economy, where conditions for the print industry are challenging, to say the least. It is an industry dominated by a proliferation of small printshops, few of which have specialised or expanded their product palettes in order to raise their competitive profile and drive growth. Merkur is one of the few.

In 1992 Merkur was one of the first repro studios in Leipzig to invest in a colour plotter complete with the relevant computing technology. In 1994/95 there followed a realignment to embrace printing, dtp, design and complex finishing. Adopting this full-service strategy has enabled the company to expand its payroll to 25, most of them young, including nine apprentice media designers.

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*Enhancing profile with digital offset and personalisation*

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In 2000 Hans Huhn ordered an Indigo TurboStream from KBA and a year later an Indigo ePrint Pro+. The TurboStream was replaced in April 2003 by a five-colour HP Indigo Press 3000 which now prints jobs typically entailing variable copy and graphics: VIP invitations, business cards and questionnaires with individually precompleted fields. There was also an increase in the demand for quality colour products like presentation folders, customer magazines or product brochures, flyers and discount coupons.

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*74 Karat  
the perfect addition*

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In December 2003 Merkur installed a 74 Karat with coater, IR dryer and film- plus plastic-printing package. The press is a neat fit with the Indigo because it can handle longer runs and bigger formats more cost-effectively, expanding the company's portfolio. On top of this,

*74 Karat for film and plastic printing at Merkur, Leipzig*

## Versatility drives success

*Addressing niche markets or offering a broad spread of services is usually a sure-fire recipe for success – as Hans Huhn, managing partner at Merkur Druck- und Kopierzentrum, is well aware. Which is why the first 74 Karat in Germany to sport a plastic-printing package went live early this year at the company's premises in Leipzig, Germany.*



*Merkur MD Hans Huhn checking the quality of the images printed by the 74 Karat on matt-transparent PVC film that will subsequently be made into mousepads*

*At Merkur, pre-press for the 74 Karat comprises standard DTP applications, Preps imposition software from Creo and O.R.I.S. Works workflow software from CGS*



the layout data for the Indigos can be used for the Karat as well.

The press went live in mid-February, fully embedded in the production chain. Within a few weeks it had gained the company new customers and attracted additional work from existing ones. At present one shift is sufficient to handle the jobs scheduled for the Karat, but another will soon be needed thanks to the press's cost-efficiency for longer print runs.

Pre-press for the 74 Karat embraces standard publishing applications, O.R.I.S. Works and RIP software supplied by Hainburg-based CGS Publishing International, Preps imposi-



tion software supplied by Creo, and an Epson Stylus Pro 7500 digital proofer.

The colour reproduction characteristics of the 74 Karat and HP Indigo Press 3000 are harmonised with the aid of the O.R.I.S. Color Tuner colour management and digital proofing software to ensure that the colour is identical in both preliminary and main print runs.

The Karat's four-colour system can simulate HKS and Pantone colours. Numerous special tones, including white, grey and metallics, are also available for the press.

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*Film and plastic-printing  
option  
expands spectrum*

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The package for printing plastic and film comprises a number of machine components and materials, among them an aqueous coater and infrared dryer. The press must be capable of handling a maximum substrate thickness of 0.5mm (19pt). Some of the many typical jobs that can then be printed include bank, telephone, staff and customer cards, mousepads, labels, POS banners and price tags, document sleeves and covers, packaging and display components, calendars and educational material, projector and light-box films.

The washing system must be modified for use with special cleaning agents, and a bank of electrodes fitted to eliminate static on the plastic film. Other components include an extra set of ink troughs to support faster changes at the Gravuflo inking units, and a different type of blanket. Although the press does not run with UV inks, UV-compatible blankets have proved to be the most suitable.

On the materials side, the press must be run with waterless offset ink that can be dried by infrared radiation to enable it to adhere instantly to non-absorbent surfaces. Merkur uses silicone-free Toracard TF inks supplied by Zeller + Gmelin in



*The blankets normally specified for UV inks are also suitable for the IR inks and plastic film used on the 74 Karat*

Eislingen, which support ultra-fine screens and laminate well.

With this package it is possible to print polystyrene, PVC, ABS, polyester (PET) and polycarbonate films, but not polyolefines such as polypropylene (PP). The aqueous coating must also be suitable for plastic and film. Tippl, an Austrian firm based in Vienna, has developed a water-soluble PVC coating, Tipadur-Printcoat P-1203 B3, specifically for the 74 Karat.

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*User verdict*

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Hans Huhn and Karat press operator Jürgen Stubbe have already gained a wealth of experience with this new technology – not least because KBA uses the press for customer demonstrations, and customers tend to bring along a selection of films to test their suitability. “Plastic is not just plastic,” explains Hans Huhn, referring to the “demo effect”. “Films can differ a lot in the static they generate, their printability and their expansion under heat. The smoothest, in the truest sense of the word, is Pentaprint.” APVC film supplied by the Klöckner Pentaplast group in Montabaur, Pentaprint is available in matt,



*Plastic film, waterless offset and IR drying – the inks for this unusual combination are Zeller + Gmelin's Toracard TF series*

*Merkur's highly proficient press operator, Jürgen Stubbe, at the Karat*



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*Related websites:*  
[www.zeller-gmelin.com](http://www.zeller-gmelin.com)  
[www.kpfilms.com](http://www.kpfilms.com)

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gloss, reinforced white and clear.

Hans Huhn is well pleased with his 74 Karat and stands by his decision to add a plastic-printing option. “Adding this capability has enabled us to raise our competitive profile and expand our client base, as

the large number of new orders and prospects shows. Quality and cost-efficiency are a huge improvement on silk-screen. This option will boost our bottom line, there's no doubt about that.”

Dieter Kleeberg  
[Mike.Engelhardt@kba-planeta.de](mailto:Mike.Engelhardt@kba-planeta.de)

Banknote Horizons at KBA-GIORI in Switzerland

# Technology powers banknote innovation

Banknote and security printing is a sensitive subject, which is why we seldom lift the veil on a niche market in which our Swiss subsidiary, KBA-GIORI, is the global leader. But in May, KBA-GIORI compellingly demonstrated its technological leadership with an open house entitled *Banknote Horizons 2004*. A good reason for us to offer a glimpse behind the scenes in a line of business that has been one of our core activities for half a century or more.

The production of modern, counterfeit-proof banknotes is experiencing a period of revolutionary advances, demanding highly specialised skills and expertise. Our staff in Würzburg and Mödling, the two plants where the relevant equipment is made, collaborate closely with KBA-GIORI to create machinery at the cutting edge of technology and science. The appointment of Johannes Schaede, head of security press engineering and development in Würzburg, to the post of technical director at KBA-GIORI is a clear indication of the desire to reinforce the existing links between the two operations.

Although KBA-GIORI played host to a stream of representatives from security printing plants, both private and state-run, on our stand at Drupa, the four-week Banknote Horizons event that took place concurrently drew more than 1,100 distinguished visitors from 69 countries to Le Mont, near Lake Geneva, for an update on the current state of the art in pre-press, press, post-press, security features and quality assurance for a printed product whose popularity has remained unimpaired by the proliferation of credit cards, electronic banking and electronic cash: banknotes.

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## Complete banknote production line in action

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Visitors witnessed at first hand the results of enhanced R&D activity at KBA-GIORI



*At Banknote Horizons 2004, KBA-GIORI demonstrated a fully integrated banknote production line featuring ten different machines for printing, quality control, personalisation and finishing*



*KBA-GIORI's print centre in Le Mont, near Lausanne*

since its acquisition by KBA in 2001. For the first time ever an entire banknote production line, featuring a grand total of ten main production machines, was erected in the Le Mont

demonstration centre. The new production line is based on a completely modular architecture with a high degree of commonality among all the machines, most notably in the



*A new offset press, the Super Simultan IV with triple delivery, can be configured with up to ten colour units*

feeder, delivery and electronic components. This is in keeping with KBA-GIORI's philosophy of reducing spare parts requirements and enhancing user flexibility.

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## Specimen banknote "Jules Verne"

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A complex specimen banknote inspired by the works of the legendary French author, Jules Verne (1828 - 1905), was created especially for Banknote Horizons by Renato Manfredi, one of the world's leading banknote designers. It incorporates over 90 security features, including some unusual ones like latent imaging on the back of the note.

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## FlowSys: integrated data management

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From offset printing to finishing, the entire production line demonstrated in Le Mont featured new control systems, on-line process control tools and an integrated security and data management system called **FlowSys**, which monitored and controlled every sheet printed as it moved through the production process.

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## Super Simultan IV: first ten-colour offset press

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The centrepiece of the production line in Le Mont was a **Super Simultan IV**, the world's first 10 colour sheet-fed offset press for banknotes, which has a wet and/or waterless capability and was put



through its paces using the new Jules Verne specimen to highlight the design and print possibilities the press can offer.

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*NotaScreen II screen-prints  
optically variable inks*

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A new screen-printing press, the **NotaScreen II**, was shown applying two separate optically variable inks (OVI) at speeds in excess of 10,000 sheets per hour.

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*OptiNota-H  
for holograms and kinegrams*

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One of the highpoints of the demonstration was the launch of a new cylinder system on the **OptiNota-H**, which supports much faster job changes when applying optically variable devices (OVDs) such as holograms or kinegrams.

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*Super Orlof Intaglio  
with CTiP*

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A **Super Orlof Intaglio** fitted with a full set of Computer to Intaglio Plates (CTiP) applied a succession of new and advanced security features including continuous intaglio backgrounds, multi-depth engravings, dual and multi-tone features plus negative and positive microprint.

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*NotaCheck III:  
offline quality inspection*

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Checking the quality of the print on both sides of the banknote is a crucial aspect of production, and with the **Notacheck III** includes **AFX** (algorithmic flexibility) transillumination to inspect the watermarks and a system based on MRF (machine readable features) to check visible and invisible UV and magnetic inks. Faulty specimens are flagged using inkjet.

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*NotaProtector  
for a longer life*

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**NotaProtector**, a modified flexographic sheetfed press, applies a protective coating along



*Johannes Schaede (l), technical director, and Olivier Beaumont, managing director of KBA-GIORI*



with additional security features in one perfecting pass, giving banknotes a longer life without impairing their familiar haptic and optical qualities.

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*Super Numerota III:  
sophisticated personalisation*

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One of the areas where KBA-GIORI has made major advances is in banknote personalisation and finishing. The **SuperNumerota III** demonstrated in Le Mont featured four new numbering technologies – **NotaMark** and **JetCode**. The **NotaMark** laser system employs a solid-state laser to burn alphanumeric codes into metallic elements (OVDs or inks) on the banknote, and the **JetCode** inkjet system prints

code or text using an invisible fluorescent ink.

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*NotaNumber III:  
high-speed individual  
numbering*

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Complementing the **SuperNumerota**, the **NotaNumber III** numbered and finished individual banknotes at speeds of 60,000 notes per hour. Faulty banknotes detected by the **NotaCheck III** were ejected.

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*CutPak III:  
one-pass cutting, banding and  
shrink-wrapping*

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Finally, visitors witnessed the global launch of an automated banknote finishing system, **CutPak III**, which cuts, bands and shrink-wraps the notes with no need for prior collation or human intervention.

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*The fascinating history of  
banknote design*

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Visitors to the pre-press demonstration centre in Sevelin embarked on a voyage of discovery and adventure, in the style of Jules Verne, following the step-by-step creation of the banknote design using ONE, a digital design and assembly system, in conjunction with CTiP. The skill of the master engraver, combined with the most advanced digital technology available, has driven the development of spectacular security elements embedded within a complete and integrated banknote design.

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*Ongoing commitment*

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Reviewing the advances that have been made, technical director Johannes Schaede said, “The new equipment launched is the fruit of invaluable input from both sales and field engineers into the R&D projects. When I started out in 1983 we had three printing processes: simultaneous offset on two sides, intaglio and typographic numbering. Today, in addition to these classical processes, we offer hot stamping, screen printing, laser perforating and marking, final inspection, finishing and inkjet marking. Tomorrow – who knows?”

Olivier Beaumont, managing director of KBA-GIORI, affirms: “Our goal was to make Banknote Horizons 2004 the most sensational event our industry has ever seen and to provide all the machinery, information and personnel necessary for our clients to discover the future of banknote printing and our industry in general. We have achieved this, and much more. We have clearly communicated to our clients KBA-GIORI’s ongoing commitment and dedication to them.”

*Klaus Schmidt  
Klaus.Schmidt@kba-print.de*



*NotaScreen II, a new screen-printing press, can apply optically variable inks at speeds in excess of 10,000 sheets per hour*



*NotaCheck III inspects banknotes offline and tags faulty specimens*

Folding carton technology leader helps drive advances

## Baptism by fire for new Rapida 105 at Rob. Leunis & Chapman Group

When our new 18,000sph Rapida 105 B1 (41½") press was unveiled at this year's Drupa, a press of this type had already been put through its paces for several months at the pharmaceutical centre run by the Rob. Leunis & Chapman Group (RLC) in Berlin. "We needed the most advanced and efficient technology on the market, because competition in the packaging industry is so fierce that only the fittest survive," says Hans-Christian Bestehorn, managing director of this family-run enterprise, which was established back in 1861.



With the new Rapida 105 at RLC, makeready is 20% faster and output 20% higher than with its predecessor



Press apprentice Matthias Klampfl at the feeder of the high-performance Rapida 105

A clear-cut product delineation, a high degree of specialisation and international alliances are the tools RLC has used to offer its clientele the agility of a family-run, mid-size enterprise on the one hand and the firepower, outreach and other advantages

of an international player on the other. The factory in Hanover, called Leunisman, prints premium packaging. Of the Berlin locations, Colorpack handles general packaging, Centerpack offers contract work and services and PharmaCenter, a new addition to the group, special-

ises in folding cartons for the drug industry. Medium- and large-format Rapida presses had been in operation at Colorpack for many years before the new Rapida 105 went into action at PharmaCenter.

### High level of flexibility

The six-colour coater press with delivery extension is the ideal piece of equipment for PharmaCenter. Being mounted on a 45cm (17½") plinth affords much greater flexibility in handling materials, which can range from lightweight paper to heavy board. "We have even run 80-gram jobs on it," explains Bestehorn. With run lengths rapidly diminishing, partly as a result of recent health reforms in Germany, the flexibility is crucial. Make-ready with the new press is 20

per cent faster than with its predecessor, while its production output is 20 per cent higher. A more advanced level of automation, with automatic plate changing as a standard feature and additional console functions such as skewed-sheet correction at the front lays, configuration of washing programs etc, have substantially enhanced efficiency.

### Innovator, not imitator

Bestehorn stresses the fact that the group's aim is to be an innovator, not an imitator. "The eastward expansion of the EU means that the higher cost of locating production in Germany must be counterbalanced by productivity gains." Here, development alliances with manufacturers can make a significant contribution.



Press woman Romy Schumann and her male colleagues have been working with the new Rapida 105 at RLC's pharmaceutical centre since the spring



This autumn Colorpack will be doubling its Rapida 142 capacity when it takes delivery of a second press, this time a six colour with two coaters, extended delivery and automated pile logistics. It will feed to one of the first 1,000 x 1,450mm (39½" x 57") Sprintera die-cutters to roll off the Bobst production line. The new kit will enable the company to offer its many customers value added in general packaging. The option of end-of-press UV coating dramatically increases the gloss levels possible in inline processing. On top of this, productivity is enhanced because the new Rapida 142 has a maximum rated output of 15,000 sheets per hour, as fast as a normal medium-format press. Nonstop automatic features at the feeder and delivery, in conjunction with the pile logistics, will enhance efficiency even further.

#### *The scheduling board has had its day*

The entire front-end at RLC was converted to CTP long ago. "We now receive all our data in a digital form," says Hans-Christian Bestehorn, "and pre-press data are routinely used to preset the Rapida presses."

With the new Rapida 105 at PharmaCenter the company goes one step further. For example, a management information system is currently being commissioned. The Rapida 105 will soon be embedded in RLC's digital workflow via Logotronic Professional, and the scheduling board for print jobs will be trashed. Jobs will then be scheduled electronically, with functions like **PressWatch** giving management and schedulers a permanent update on the progress of each job through the production chain. All events and reports relating to the press can be tracked and accessed. The press data can be made available to administration for statistical cost accounting and the press operator will have his job list, complete with all the relevant

data, directly on hand at the press in a digital form. The new Rapida 142 will also be embedded in the digital workflow at RLC.

#### *Folding cartons – an ecological packaging*

RLC's folding cartons, its main product, are the most environmentally friendly in the packaging industry. Product ecology has always been high on the firm's list of priorities. "We don't waste a lot of words on it, we just do it," says Hans-Christian Bestehorn. "For many companies, unrelenting pressure from customers to keep prices nailed down automatically generates the need to innovate with new, more ecological products." Low-alcohol or alcohol-free production, the use of environmentally friendly inks, reductions in emissions, production waste, raw materials and ink – these are issues that RLC addresses day after day. And not just because it is obligatory for a company that produces food and drug packaging. Although a licence like the one PharmaCenter owns for primary drug packaging is only issued by the health authorities after rigorous vetting, RLC is equally motivated by respect for the environment and concern for staff welfare.

*Stephan Bestehorn with the packaging system for baked goods that won a World Star award*



#### *Continuous growth*

In recent years, despite an economic downturn that impacted on the print industry with greater or lesser severity, the Rob. Leunis & Chapman Group achieved its corporate target of solid year-on-year growth. Sales in 2003 approached €50 million (\$62m), with the three plants in Berlin contributing a little over half. This year sales will be well above the €50m mark. RLC has 346 people on its payroll, split equally between Berlin and Hanover. The finished-goods warehouse in Berlin alone contains some 7,000 pallet positions. A further 10,000 will be added at Centerpack in January 2005.

As a member of the COPACO packaging partnership and the Global Packaging Alliance, RLC can justifiably claim to be an international operation. The Alliance network enables it to offer global brand manufacturers an identical service and production standard both in Europe and abroad. Thus a developer of a certain packaging type, series or system, for example, guarantees the same quality at all its partner enterprises throughout the alliance, giving customers access to a universal standard of



*Automatic ink pumping with cartridges is a standard feature of all the Rapidas at RLC*



*The new suction belt table has just one broad suction belt running at maximum production speed*

service regardless of their geographical location. This enables RLC to offer packaging in seven countries: the USA, Brazil, Mexico, China, Australia, Russia and Germany.

#### *Award-winning products*

The group has garnered international awards for some of its product designs. In 2002, for example, its automatic system for packaging baked goods using a blank won the company a Pro Carton/ECMA Award. This qualified it for the World Star award sponsored by the World Packaging Organisation, which it won the same year with packaging for a dome-shaped cake ("Kuppelkuchen") sold by Bahlsen.

Martin Dünhardt  
Daenhardt@kba-planeta.de

**O**ur established B1 press series has been renamed the **Rapida 105 universal** to underline the fact that all the versions previously available with this model have been fully retained in our product range.

A closer look beneath its sleek exterior reveals that the **Rapida 105** is quite different from its predecessor – a totally new product, in fact, and not just a new generation. This can be seen in the modified cylinder geometry alone. The angle of sheet bend during transfer has been made more oblique in order to support a production speed which, at 15,000 sheets per hour in perfecting mode and 18,000sph in straight-run production, is fully twenty per cent faster than before, even on an eight-unit press. The delivery extension has been elevated to eye level to promote a smoother, gentler sheet passage, afford easy access to the dryers and allow the addition of new features like our Qualitronic II sheet-inspection system.

Even when pumping out 18,000 sheets per hour this powerful new press runs as smooth as silk and comfortably within its mechanical capabilities – evidence of the extreme precision with which it was constructed. The result is enhanced reliability and a longer service life. This is due in no small part to the superior design and stability of the mechanical components, eg the cast-iron substructure, gear boxes cast onto the superstructures, the continuous gear train drive with no unwieldy main shaft, and zero-play antifriction bearings for the cylinders.

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*Unique features:  
shaftless feeder...*

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Some of the many features unique to this new model are to be found at the feeder and the infeed. The shaftless feeder with direct AC drives, which for medium- to superlarge-format presses is only available from KBA, now operates with

*In a class of its own: our new B1 Rapida 105*

## The difference lies in a diversity of details

*At Drupa, what first struck the professional eye observing the new Rapida 105 in action were its classy new design, its fast makereadies and its stunning output of 18,000 sheets per hour. But what makes it really stand out from other genuine or apparent new launches in its format class is an array of unique technical features which, though not immediately evident, fascinate the technically minded, make life much easier for printers and deliver substantial economic benefits. What is more, this new press has already undergone exhaustive shopfloor testing and is available here and now, not with a delay of twelve months.*



*Our new B1 Rapida 105: a technological masterpiece from feeder to delivery*

much greater precision, is much more ergonomic and is easier to maintain, particularly

when production entails frequent changes of substrate. Abrasion-prone adjusting

gears, cardan shafts, chain and synchronous belt gears are a thing of the past. The pile lift has a much smoother action, irrespective of stock weight. Just one broad suction belt with a sheet decelerator conveys the sheets precisely to the infeed, whatever their grammage. In the event of a stoppage the sheets can be withdrawn and restacked on the feeder pile by actuating the function "reverse sheet collect".

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*... and suction-lay-free infeed*

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As an option, the new Rapida 105 can be fitted with a suction-lay-free infeed instead of the standard pneumatic lays – an absolute world first. With this option, the suction lays that have been a standard feature for



*The shaftless feeder has just one suction belt for an optimum sheet feed irrespective of stock weight*





*The new Ergotronic console, with integrated Qualitronic II sheet-scanning system (the screen on the left) and the Densitronic S dual-purpose densitometric and colorimetric control system (in the background)*

so many years are replaced by a sensor that continuously scans the sheet edge and passes the information to the feed drum for pre-alignment of the gripper bar. Following sheet transfer from the swing arm the gripper bar is positioned precisely by a servo motor located on the infeed drum. So there is almost twice as much time available for sheet alignment as with pneumatic suction lays. Also, there is no tugging action to impair the infeed sequence to the front lays, which can be adjusted singly or collectively from the console. Both lightweight stock, which easily buckles, and rigid sheets, which tend to recoil from the front lays, thus have plenty of time to align precisely at the front lays. This benchmark innovation makes the entire process much smoother and more accurate, while relieving the operator of time-consuming setting tasks when changing the substrate.

#### *Raft of new features in the printing units too*

The automatic plate changers fitted as standard on the new Rapida 105 are now even faster and no longer angle outwards during plate changing like those on its predecessor. Direct drives for the plate cylinder, trumpeted as a world first by another press manufacturer at Drupa 2004 and demonstrated on a single printing couple (but not on an operational

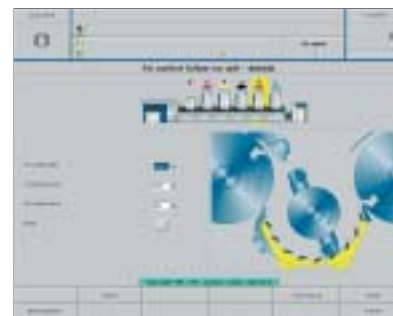
press with a full-colour capability!), are no novelty for KBA, having been the subject of intensive testing for some time. However, because we are all too familiar with the technological and print-related challenges associated with this type of system, we decided that direct drives were not yet ready for launching at this year's Drupa. Good things take time.

Modifications and improvements to the inking units in the new Rapida 105 have enhanced quality control and reduced waste even further than the fast-reacting and stable inking units in its predecessor. Here we drew on our engineering expertise with large-format Rapidas, which deliver a highly superior print quality. Other interesting features from the user's point of view are three-point ink train separation with profile retention during production stoppages, two-phase roller throw-on/off and a new function, "quickfeed", which offers the option of restarting at a higher speed (maximum 12,000sph) after interruptions. This cuts start-up waste to a minimum of just 10 sheets or so. Along with our proven, abrasion-free Colortronic ink ducts, one of the options we have preserved – and one not available from our competitors – is the ability to disengage inking units that are superfluous to requirements for the current run, thus eliminating needless wear and tear on the rollers.

New features include a differential drive for the dampening forme roller which can now be engaged at full speed during the production run and not just at the basic speed; automatic predampening at impression ON; an optimised washing program; and an optional multiple washing system for the blanket and impression cylinders in tandem with Baldwin Impact.

#### *Perfect sheet guidance*

The sheet transfer system from the feeder to the delivery in the new Rapida 105 is engineered to support a higher production speed and a broader substrate spectrum. Contact-free, airborne sheet travel for stock weighing up to 450gsm (19pt board!) is now a standard feature. And on the new press, as on all our others, the sheets are always fully printed – even the maximum image length – prior to transfer. The air flow for sheet guidance can be finely adjusted at the console, so handling critical substrates becomes a routine task. All the air settings can be stored at the console for repeat jobs. The CX package enables the press to handle materials up to 1.2mm thick, like 48pt solid board or



*Convenient operation from the console thanks to easy-view data screens. The example shown here is for air-flow control during sheet transfer*

F-flute. The well-proven grippers with universal pre-tensioning no longer have to be laboriously reset when changing the substrate, regardless of whether lightweight paper follows thick carton, or vice-versa.

Ionisers and an optional corona unit that can be built in after the infeed make the UV version of the Rapida 105 a powerful yet cost-effective means of production for special laminated materials and film.

#### *Delivery optimised for higher speeds*

In practice, the higher speed and the ability to handle a



*High-speed, automatic plate changers with non-pivoting shafts are a standard feature on this new B1 press*



The delivery extension on the new Rapida 105 has been elevated to eye level for easier operation and access plus a smoother, gentler sheet run



The new Rapida 105 was unveiled before an appreciative audience at our pre-Drupa open house in Radebeul at the end of March



KBA Qualitronic II: effective inline quality control via a high-performance colour camera directly above the final impression cylinder

broad range of stock weights are only possible if the sheets are conveyed to the delivery pile with absolute precision. For this reason the elevated extension is just one of many modifications to the delivery.

Gripper guidance has been kinematically optimised with the aid of computers, the powder sprayer integrated in the console controls and nonstop delivery made a standard feature.

All the air-flow elements in the delivery can be adjusted using an eye-level touch-screen display directly at the delivery. All the format-dependent sequences in the delivery, eg the activation or deactivation of the relevant suction rings at the sheet brake, can be preset at the console during central format adjustment, as can the number of inspection sheets that are to be pulled.



Our Drupa stand was packed whenever the Rapida 105 was demonstrated

#### Typically comprehensive choice of inline finishing features

The inline finishing options available with the Rapida 105 universal (standard coating, hybrid coating, double coating, numbering, perforating etc) are, of course, also possible with the new Rapida 105. But here, too, user-driven improvements have been made, among them lightweight aluminium rollers plus an optimised plate changer for the anilox coater.

ACR, Qualitronic, Densitronic, Logotronic, JDF...

The Rapida 105 raises the benchmark in electronic and control technology. Virtually every element that can be preset or adjusted pneumatically or mechanically – optional extras included – can be controlled from the new Windows-based Ergotronic console.

The list of extras available for quality control and documentation is substantial. It ranges from automatic video-based colour register control and our new camera-based sheet-scanning system, Qualitronic II, for quality control within the press, to a Densitronic Basic colour-control system embedded in the console or

Densitronic S in a separate desk for combined densitometric and colorimetric control. And like all its stablemates, the new Rapida 105 can be integrated via Logotronic Professional and a JDFLink interface in an all-digital, JDF-compliant workflow with management information systems sourced from various providers. In conjunction with the many other modules, the electronic production schedule now embedded in Logotronic Professional facilitates the transition to a digitised printshop routine.

#### Practical design for practical users

Our new Rapida 105 is not purely the work of experienced design engineers. Veteran printers and critically constructive users also played a decisive role in its creation. This is apparent in every detail, from the press per se to the data screens at the console.

Klaus Schmidt  
Klaus.Schmidt@kba-print.de

This issue of *Report* features a supplement on cross-process applications for XML in the printing industry. If your copy does not contain this supplement you can obtain it free of charge from our marketing department in Würzburg at the address on page 63.



Environmentally friendly technology

# Innovation award for Rapida 74 G

At Drupa in May our waterless Rapida 74 G with keyless GravufLOW inking units took centre stage on the Marks-3zet stand when, accompanied by its proud progenitors from KBA Radebeul, it was awarded not only an "Emission tested" certificate by the Berufsgenossenschaft Druck und Papierverarbeitung (BGDP) but also the first "Emission Reduced Waterless Offset" certificate to be issued by the European Waterless Printing Association (EWPA).

At Drupa 2000 the Rapida 105 was the first sheetfed offset press worldwide to be awarded an "emission tested" environmental certificate by the BGDP, which is the equivalent of the H&SE in the UK or OSHA in the US. The entire Rapida press range subsequently followed suit. In order to achieve such an accreditation, all press emissions must remain below the lowest levels permitted by any state within the EU. There are two key criteria: the press must support low-emission production and the manufacturer must enable the user to implement low-emission production in the press room.

The Rapida 74 G has now become the first waterless sheetfed offset press worldwide to attain this coveted certificate. And if that is not enough, it was also the first recipient of

a brand new "Emission Reduced Waterless Offset" certificate presented by the EWPA. All those engaged in its development and certification received the EWPA's Innovation Award.

*New direction  
after 200 years of roller-based  
inking units*

At the award ceremony KBA president Albrecht Bolza-Schünemann pointed out that after almost 200 years of roller-based inking units in sheetfed printing it is time for a rethink. The B2 (29") Rapida 74 G is the first unit-built sheetfed offset press to feature a temperature-controlled keyless inking system. The core components of the GravufLOW inking unit are an ink duct with doctor blade and ink feed via cartridges, a screen roller and an



The Rapida 74 G with GravufLOW keyless inking units redefines sheetfed offset

Detlef Braun (l) of the EWPA presenting the first Innovation Award to Albrecht Bolza-Schünemann



ink-forme roller (both with the same diameter as the plate cylinder). This guarantees a totally ghosting-free image, even when a thick film of ink is being applied, start-up waste of less than ten sheets, a perfect match with the proof and absolute copy-to-copy and run-to-run repetitive accuracy. The new press unites the benefits of KBA short-train inking technology with the flexibility of unit-type construction, which supports individual press configurations featuring up to eight printing units plus perfecting and inline finishing. As a result it offers a raft of economic advantages for short-run printing,

especially when it comes to handling costly substrates such as film, designer paper, aluminium-coated carton etc.

*First press goes on stream  
in Sweden*

During the fair a number of Rapida 74 G presses were sold to printers in Scandinavia, Germany and other European countries. The press exhibited at Drupa (four colours with coater) has since been put into operation at Swedish packaging printer Cela Grafisk in Vanersborg.

Martin Dünhardt  
Daenhardt@kba-planeta.de



KBA president Albrecht Bolza-Schünemann (right) receives the certificate "Emission tested" from Albrecht H. Glöckle of the BGDP



Exclusive Muhammad Ali biography printed on large-format KBA presses

## Greatest Of All Time

It is forty years since the great Muhammad Ali – or Cassius Clay as he was then known – beat Sonny Liston by a knockout to win his first world heavyweight championship. His legendary career, which not only made history but also brought him enormous popularity beyond the world of sport, has now been documented in a



Unique, heavyweight and much admired – just like its subject. The 500mm (20”) square Muhammad Ali biography printed on our Rapida 162a size 7-plus presses weighs in at 34kg (75lbs) and is being published in a strictly limited edition of just 11,000 copies

unique biography that itself has merited an entry in the Guinness Book of Records. Following advance promotion at the Frankfurt Book Fair in 2003 with 25 specimen copies, this masterpiece was recently printed in Italy – on Rapida 162a presses at **Arti Grafiche LEVA** (Sesto San Giovanni, Milan) and **Canale** (Turin).

The two Italian print operations were selected for the job by book-binder Legatoria LEM, which had been entrusted with the overall production by Cologne-based German book publisher Benedikt Taschen. LEM screened a number of possible candidates, all of them high-profile enterprises, but finally awarded the contract to Arti Grafiche LEVA because it enjoys an international reputation for immaculate quality. Arti Grafiche LEVA has been in the business for more than 25 years, printing upmarket art books, posters, calendars, soft-back books and brochures for a discerning and highly critical clientele.

### Tradition of quality in Italy

Like the champion himself, this elaborate new biography, entitled “*Greatest Of All Time – A Tribute to Muhammad Ali*”, beats all records. In the words of Marco Fraceti, marketing

manager at LEVA: “The production of the book, which was created for wealthy collectors the world over, represented a tremendous challenge, partly because we had to work to an extremely tight deadline and partly because the quality demanded was exceptionally high.”

He continues: “Benedikt Taschen, the publisher, was adamant that the job should be done by a specialist printing plant in Italy with experience in creating luxury illustrated volumes and art books. Because of the complexity of the work involved, and also to guarantee that we could meet the deadline, we split the job with an allied enterprise, Canale, whose reputation in the international book market is of the same high calibre as ours. Also, like us, Canale operates size 7-plus (63<sup>3</sup>/<sub>4</sub>”) Rapida 162a coater presses. In the sheetfed offset market, the Rapidas are in a class of their own as far as production output and print quality are concerned.”

### Guinness Book of Records: a heavyweight rarity...

“*Greatest of All Time*” was not only a “big” sensation at the Frankfurt Book Fair last year, but was also awarded an entry in the Guinness Book of Records. The production data speak for themselves.

The biography is being published in a special limited edition of 11,000 individually numbered copies. Not even the awesome asking price of \$10,000 for the 3,000 copies of the Champ’s Edition has deterred serious collectors and boxing fans from signing up for such a rarity. And the Collector’s Edition, a snip at just \$3,000 for each of the 8,000 copies, was also snapped up in no time.

The Champ’s Edition has a white silk cover with pink lettering. It includes four gallery-quality silver gelatine prints measuring 500mm (20”) square signed by photographer Howard L. Bingham and the great man himself. Every Champ’s

Edition comes with the sculpture “Radial Champs” by Jeff Koons. The Collector’s Edition shows Ali’s torso with pink lettering and each copy comes with a photo-litho version of “Radial Champs”. All 11,000 copies are individually signed by Muhammad Ali and Jeff Koons.

A world heavyweight among books, the biography tips the scales at 34kg (75lbs). It is hand-bound in pink leather (the colour of Ali’s first Cadillac) and housed in an exclusive silk-covered presentation box illustrated with Neil Leifer’s iconic 1966 photo “Ali vs Williams”, which was voted the greatest sporting image of all time by *The Observer* magazine, London.

### ...with an exclusive design

Printing the biography was a technological *tour de force*. The 792-page book is made up of 66 signatures perfect printed in nine colours plus gold-metallic coating on Zanders Xeramix





*The 792-page book comprises 66 signatures perfect printed in nine colours plus a gold coating. Some of the richly illustrated pages can be folded out to a total width of 1.5 metres (59")*

coated stock specially selected by the publisher. Because of the extreme difficulty of printing with special colour shades plus gloss and matt coatings, two passes were needed for both printing and coating. Some of the many richly illustrated pages, featuring unforgettable images like the world championship bouts in Kinshasa and Manila, are gatefolded and can be opened out to 1.5m (59") or, in sequence, a full 2 metres (78<sup>3</sup>/<sub>4</sub>").

Says Marco Fraceti: "Considering the three years of research that went into collating material for this project, and the year's pre-publication preparation, the six-week time-frame allocated for the production run was extremely short. Prior to going on impression we ran test prints for a week, and Benedikt Taschen flew down to Milan specially to inspect the results. Only after he had expressed himself satisfied with the results were we able to start the actual print run."

#### *Cutting-edge technology*

Arti Grafiche LEVA installed its first KBA press in 2001 after printing on other makes of press for many years. In relatively quick succession the company inaugurated the two big coater presses and a Rapida 105 six-colour B1 (40")

press, also with a coater. The three KBA presses have been given pride of place in the 4,200m<sup>2</sup> (45,000ft<sup>2</sup>) production hall at the company's new premises in Sesto San Giovanni.

"Initially we were inclined to stay with B1, because we believed that large format was unable to compete on quality and cost-efficiency," says Marco Fraceti. "But KBA soon convinced us otherwise. The Rapidas have an outstanding reputation among Italian printers, as numerous installations demonstrate, and we needed to keep pace with competitors who had installed them. That is why we decided to go for KBA's advanced technology – because it has proved to be the best on the market."

#### *Rigorous quality criteria*

With an elaborate job like this, and a relatively short print run, it was not the 14,000sph maximum rated speed of the two five-colour coater presses that was put to the test but the outstanding quality for which large-format Rapida presses are renowned.

"As a specialist in art reproduction we enforce the strictest standards of quality control," says Marco Fraceti. "Our Rapida presses are equipped with optional electronic extras such



*An international reputation for quality was the reason why KBA customer Arti Grafiche LEVA (Sesto S. Giovanni/Milan), in alliance with fellow KBA user Canale (Turin), was awarded the printing contract by German publisher Benedikt Taschen. From the left: Dario Braschi (KBA-Italia marketing manager), Marco Fraceti (LEVA marketing manager) and Antonio Vezzoni (KBA-Italia sales manager for Lombardy) at the new Rapida 162a*



*The contract to print the biography was a challenge for the press crew at Arti Grafiche LEVA*





The optional extras for the large-format Rapidas include Densitronic S electronic quality control (from the rear desk) to ensure maximum efficiency in monitoring the printing process



Book-binder Legatoria LEM has made a name for itself in the art world and among international publishers for its ability to handle challenging contracts demanding the greatest technical expertise



Famous predecessor: also published by Benedikt Taschen and up until now the biggest book in the world – the biography of star photographer Helmut Newton – was also bound by Legatoria LEM. Pictured with it are LEM proprietor Leonida Griggio (2nd r) and production manager Renzo De Grandi (on his right) with Antonion Vezzoni and Dario Braschi of KBA-Italia

as KBA Logotronic for production management and KBA Densitronic S for closed-loop colorimetry and densitometry. This makes for a high level of reliability in monitoring and controlling the entire printing process. Added to which an online link to the pre-press and administrative departments promotes a highly efficient workflow.”

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*As few as 30 posters or as many as 100,000 books*

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He continues: “The three Rapidas for two sheet formats deliver maximum productivity with every type of job. Our customer base includes medium and small publishing houses not just in Italy, but also in the rest of Europe and beyond. Run lengths generally range from 1,000 to 100,000 copies, but in the niche market we serve, customers often ask for even shorter runs. The Scala in Milan, for instance, may need 30 posters within 24 hours. Our production lines, with their fast makereadies, advanced technology and high production output, enable us respond to customer and market demands cost-effectively and with unprecedented flexibility. We can print small, complex jobs and high-volume runs with equal efficiency, while value-added features such as inline coating and drying support product diversity.”

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*Legatoria LEM –  
a byword for quality in the  
international art world*

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The print run for the Muhammad Ali biography was completed on schedule and the sheets sent to Legatoria LEM for finishing. Since the middle of March the company has been busy folding, collating, gluing and binding at a rate of 1,000 to 1,500 copies per month, which to a layman may seem slow but to an expert indicates the consummate skill that is involved. The last book in the series will be delivered to its eager recipient in October. Like LEVA and

Canale, LEM has a reputation for rising to a challenge, however daunting it may. Established in 1969 by Leonida Griggio, the company enjoys a reputation among publishers and in the international art world for its ability to handle seemingly impossible jobs. The production plant at its 1.7ha (46-acre) site in Landriano (Pavia) is equipped with the most advanced technology on the market for manual, semi-automatic and automatic production. No matter how taxing and eccentric its customers’ specifications may be with regard to format, materials and finishing, LEM is happy to comply, reliably fulfilling quality criteria and meeting delivery deadlines. The previous record-holder for the world’s biggest book – a biography of star photographer Helmut Newton – was also published by Taschen and bound by Legatoria LEM.

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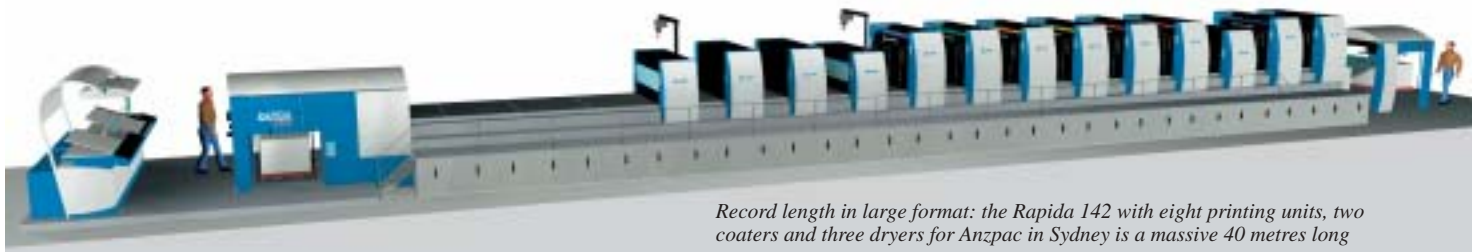
*Superior finishing*

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Production manager Renzo De Grandi, who joined LEM a while ago from prominent art printer and KBA customer Amilcare Pizzi in Milan, is well aware of the challenge that producing the Muhammad Ali biography entails: “It’s our trickiest job yet. We have planned everything right down to the last detail and left absolutely nothing to chance. For Legatoria LEM, a print contract such as this is a prestige issue. It demands absolute precision and meticulous care on the part of man and machine at every single stage of production. If boxing champion Lennox Lewis, who recently retired, should ever plan to have a biography written – we’d be more than happy to oblige. But whatever contracts we may receive in the future, “*Greatest Of All Time*” will occupy a place of honour in our portrait gallery. Muhammad Ali was, and still is, the greatest.”

*For further information  
please contact:  
braschi@kbaitalia.it*





Record length in large format: the Rapida 142 with eight printing units, two coaters and three dryers for Anzpac in Sydney is a massive 40 metres long

LF Rapidas gaining ground

# Australian packaging printers start thinking big

With the biggest sheetfed offset press in Australia now up and running at **Glama Pak** in Melbourne and the world's longest sheetfed offset press heading soon for **Anzpac** in Sydney, Australian

printers have discovered the delights of our giant Rapidas for packaging and displays, even though Australia is not a typical large-format market.

**M**elbourne packaging printer Glama Pak runs a Rapida 162a press line 25.4m (83ft) long and almost 3.6m (12ft) high, capable of handling a maximum sheet size of 1,200 x 1,620mm (47<sup>1</sup>/<sub>4</sub>" x 63<sup>3</sup>/<sub>4</sub>").

The six-colour press with coater features automatic plate changing, nonstop auto feeding and a string of other modules for cutting makeready times. The 162a is extremely versatile and able to print on a variety of materials, from 80gsm paper (55lb book) to 1.6mm (E-flute) corrugated.

Glama Pak invested A\$6m (\$4.3m) last year in installing the new press and expanding its Kilsyth, Melbourne, factory. "The Rapida 162a has run well and given us the confidence to order a second machine from KBA for delivery next year," says John Wheeler, who owns a 51% controlling interest in Glama Pak.

*Glama Pak:  
finest quality,  
just-in-time service*

The Kilsyth facility provides a full printing, corrugating and converting service. In addition to packaging, Glama Pak's new Rapida also produces point-of-purchase mate-

rial, displays, posters and maps. The company focuses its marketing efforts on smaller manufacturers needing a fast, responsive and quality service. Jobs can be turned around in just three days, including sourcing of stock. Provision of packaging to manufacturers has become very much a just-in-time business, with average run sizes of around 5,000.

John Wheeler believes his company will continue to grow and remain competitive against the big-time players in the Australian packaging market. To this end he is investing a total of A\$17.5m (\$12.6m) in new technology up to 2005.

## 40-metre Rapida 142 for Anzpac

Sydney-based Anzpac Services (Australia) opted for a 12,000sph size 6 (55") Rapida 142 comprising eight units, two coaters, three dryers, autoconvertible perfecter, a triple delivery extension and automated pile logistics. Extending 40 metres (more than 131 feet), it is not only the longest large-format press ordered from KBA to date but also the longest sheetfed offset press worldwide. The 142 is slated to ship in October and take up production before the end of the year.



The Rapida 162a six-colour at Glama Pak boasts the largest sheet format in Australia

Established back in 1900, Anzpac has evolved from a family-owned firm into one of Australia's premier manufacturers of high-volume folding carton packaging. In 1986 it was purchased by Rothmans Holdings and is now the printing and packaging arm of British American Tobacco Australasia. The company also supplies packaging for leading brands of fast food, confectionery, medical diagnostics, fabric care and bakery products.

Anzpac was one of the first packaging companies in Australia to attain ISO 14001 envi-

ronmental accreditation, which compliments Anzpac's existing ISO 9001 and HACCP accreditation. Year for year it recycles some 2,300 tonnes (2,530 US tons) of board, plastic and liquid waste.

Management opted for the Rapida 142 following an exhaustive tour of European packaging plants. The new press will enable the company to trim costs by streamlining its production flow, eg with inline perfecting and perfect coating.

*Klaus Schmidt  
Further information:  
Kbsales@kbaaustralasia.com.au*

*Berle:druck focuses on UV and lenticular printing*

# Catch the eye, make the sale

Printed holograms, a popular phenomenon in the sixties and seventies, are currently experiencing a revival. More often than not they are now being used to promote products rather than to entertain. Post cards and CD or magazine covers are just a few of the possible applications. New, high-precision techniques in pre-press and press, coupled with advances in UV technology, have vastly improved the images that can be obtained.



*3-D printing on 500 x 700mm film, the ideal format for lenticular printing*

**A**lso known as optically variable images or OVIs, holograms are pictures in the classic sense because the best way to create them with the fine detail necessary is to use photographic processes. To achieve the impression of movement from one image to another when the surface is tilted, at least two different images are generally needed. These are divided into strips, in a similar way to a television image, and the two sets of strips exposed in alternate sequences on the carrier. So basically the images are split up and then combined to create a single image.

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*Lenticular printing:  
precision's the word*

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One way to do this is to laminate the lenticular film onto the image. Another way is to directly expose the lenticular

film after coating it with photographic emulsion. The upper surface of the film bears a lot of fine parallel lines which function like optical lenses. In order to achieve the desired hologram effect, each of the strips in the

sequences to be combined must have exactly the same width as the distance between the lines and must be placed precisely on top of them. The first image becomes visible when the lenticular film is viewed from one

angle, the second image when it is viewed from another. The image thus appears to move or to have a third dimension. That's the basic principle.

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*Printing lenticular images*

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*At Berle, the office opens directly into the press room where the new Rapida 74 five-colour with coater and UV capability is in operation*



*"Our UV capability addresses the diverse needs of our clientele. We are confident that 3-D will enable us to build up a new field of business."*  
Rudolf Berle



The printing process most frequently used for lenticular prints is UV offset. Sophisticated screening technologies now enable photorealistic prints to be created. The precision of modern, high-automation printing presses is another factor that has made UV offset the process of choice for producing lenticular images. The ability of the 74 Karat digital offset press to apply oxidative Toracard inks means that the image can be exactly and repeatably printed on the film, even in long runs. Modern cold UV lamps prevent the synthetic film from distorting during curing. At the same time there have been substantial improvements in the technology for manufacturing lenticular films. The impression of movement – the “flip-flop” effect – is one of the simpler ones possible with lenticular film. “Morphing” (creating the appearance of a metamorphosis by means of sequential movement) and zoom effects are much more sophisticated.

But it is with 3-D effects that lenticular technology reveals its true fascination. Here, prints appear deceptively plastic. Studies have shown that 3-D images attract attention more effectively than static images. The eye lingers on a 3-D lenticular image up to four times as long as on a two-dimensional one. And the “stopping factor” is five times higher than with normal pictures. 3-D pictures tend to arrest the gaze, which is why most lenticular prints nowadays are used to display 3-D images in preference to flip-flop effects or morphing.

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#### *Product differentiation with UV and 3-D*

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It was this enhanced impact that appealed to Rudolf Berle, who runs a small printshop in Kaarst for a clientele which primarily comprises advertising agencies. After careful deliberation, earlier this year Berle invested in a new Rapida 74 five-colour coater press with

UV capability, online CIP4 data transfer and a Densitronic Basic colorimetry and densitometry system. For berle:druck, rigorous quality standards, a rapid turnaround and a high level of flexibility in the use of UV, hybrid and conventional inks are of the first importance.

Now 45, Rudolf Berle took over his father’s business as a young man back in the 1980s. At that time the company specialised in printing business forms and writing paper. In the early nineties the focus shifted to upmarket products targeting advertising agencies. In 1997 a four-colour offset press was installed and in 1999 berle:druck equipped its pre-press department with CTP, fully adopting it in 2001.

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#### *Staying ahead of the curve*

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Says Rudolf Berle: “As a small-scale enterprise with a highly motivated team we need to stay ahead of the curve in order to survive, and this is why we decided it was time for more highly specialised applications. Hybrid has always fascinated us because of the effects that can be achieved. Our UV capability addresses the diverse needs of our clientele and enables us to provide a reliable service. Problematical and costly materials no longer present a challenge, nor does perfect printing on cartonboard. We can convey the sheets to the finishing department straightaway, with no delay for drying, and can calculate material requirements and costs much more accurately. We are confident that 3-D will enable us to build up a new field of business.”

He goes on, “We started 3-D printing at Drupa. KBA and plascon, a lenticular film specialist, wanted a more eye-catching way to demonstrate the wide variety of options possible with lenticular printing for creative applications and were looking for a suitable production scenario. Since we had just upgraded our entire pre-press, platemaking and press technol-



*A versatile production tool: the Rapida 74 can apply UV, hybrid or conventional inks*



*The lenticular prints must be prepared and checked using a microscope*



*Plate exposure without the aid of Square Spot on Creo’s Lotem 400: lenticular printing demands variable screen angles*



*The Epson Stylus Pro 7600 is suitable for proof-printing lenticular prints on specially coated synthetic film*

ogy and already served an agency clientele, KBA asked us if we would be interested in joining the team. We were delighted to accept.”

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#### *Virtual worlds in print*

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For Rudolf Berle, the complex processing of two-dimensional images is only the start.

He believes that future growth lies in using print to create realistic, three-dimensional virtual worlds similar to those in video animations. He is persuaded that these virtual worlds are the shape of advertising to come.

*Uwe Clever  
Clever@netcologne.de*

New-generation presses boast unique operating features

## Are Rapidas becoming high-speed copiers?

Although there has been a lot of talk about our vamped-up B1 Rapida 105 and new VLF Rapida 205, the focus has been on their print output, sheet size, changeover times, automation and snazzy new design. Control sequences have only been mentioned in passing, despite the fact that the systems for both presses boast some unique features. And the question as to whether the Rapidas are on the way to becoming high-speed copiers, as far as their operation is concerned, is not as ridiculous as it may seem.



The new Rapida 105 relieves the operator of routine setting tasks, enabling him to concentrate on quality

One of our primary goals in designing the new Rapida presses was to replace manual setting tasks with remote-controlled presetting capabilities and automation, thus minimising the time and labour required for job changes, and the waste generated. The basic aim was to support the remote control of virtually every function from the feeder to the delivery. Another major priority was to facilitate operation with the aid of graphics at the console and touch-screen displays at the infeed printing unit and delivery.

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*Data screens  
promote better grasp  
of technology*

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The data screens at the console were developed in close collaboration with press users. To assist the operator, they not only display the individual function keys but also employ simple graphics to illustrate the sequences – some of which are highly complex – and the inter-

actions that occur within the press when a setting is changed. Giving the minder a better grasp of the overall machine technology dramatically reduces the number of human errors and faulty settings. On the one hand this approach helps to address the problems arising in many countries from a chronic shortage of trained personnel, which is forcing printers to place their high-performance presses in the hands of less qualified staff who then struggle to deliver the desired image quality. On the other hand it extends the net production time and enhances cost-efficiency by exploiting the enormous potential for shortening and optimising control sequences. The press crew has more time to focus on quality, an increasingly important aspect.

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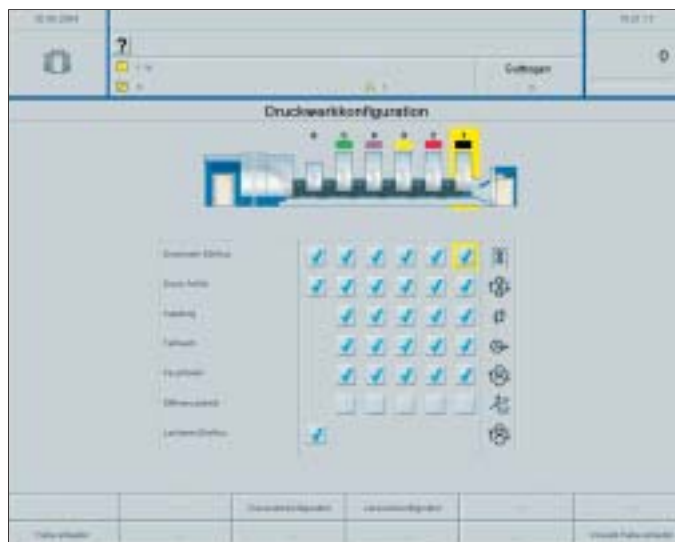
*Manual settings  
the absolute exception*

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With many B1 and large-format presses it is still common practice to make a lot of the mechanical and/or pneu-

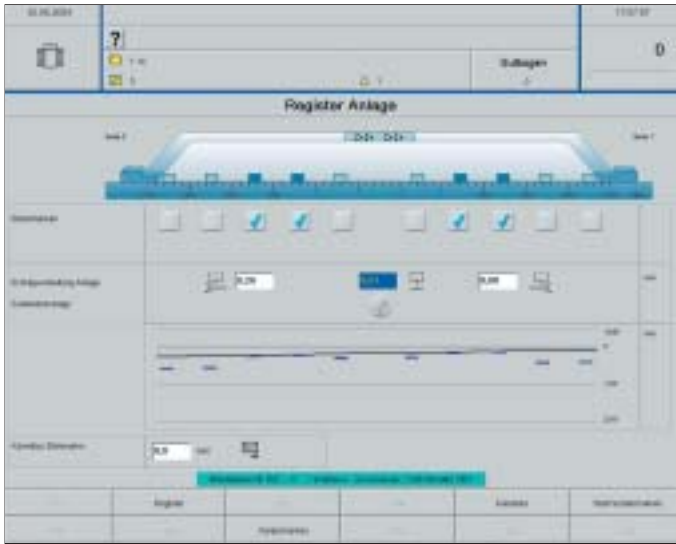
matic adjustments manually at the individual subassemblies. On the new Rapida 105 and Rapida 205 scarcely a single valve must be manually adjusted at the feeder, infeed, printing units or delivery. Suction and blower air is adjusted via + and - function keys. Both stock-specific and job-specific settings can be stored. So if the

same stock is used later for a different job, all the settings can be downloaded from the memory and the press preset automatically. And even though it is still possible to correct sheet travel at the individual subassemblies, there will soon be no need to do so. The same applies to setting the sheet size, printing pressure, inking unit



Printing unit configuration for a five-colour coater press. Options include the ability to disengage the printing units that are not required for the next run





Infeed register and cocking – everything is displayed in detail on the console screen

settings (eg vibrator timing or distribution adjustment) and a lot of other routine operating tasks.

**Example 1:**  
infeed printing unit

Here are three examples to illustrate this new automation philosophy, starting with the infeed printing unit. The pull lay, sheet guides and belt suction at the feed board can all be controlled from here with absolute precision via clear-text displays (figure 1). It is also possible to set the sheet counter for a specific job and even to key in a different language for the display at the infeed printing unit from that selected for the console or delivery display. This is a useful feature if the press crew is composed of various nationalities.

The suction settings for all four chambers in the suction-belt feed table and the blower function at the feed board can be controlled using the + and - keys (figure 2). This paves the way for automatic press setting, since the only manual task that remains is to create a database in which the presetting values for the different types of stock can be stored. If users are willing to place such data at our disposal, we can even manage the database in-house and include it with the software when shipping to new customers. The data can be used to set virtually all the feeder and infeed func-

tions – minor adjustments are only needed when a new batch of paper is delivered or a new type of stock used.

**Example 2:**  
delivery

At the delivery, both the blower frame and gripper timing – which previously required manual adjustment – have been automated in the same way. Using the clear-text display at the delivery, the gripper timing for the relevant substrate can be adjusted at the upper point (maximum speed) and the lower point (basic speed), and these job-specific settings stored for future use (figure 3). Gripper timing at the current press speed is displayed as a chart, which makes it easier both to train operators and for them to operate the press. The settings can also be stored for repeat jobs. The same procedure is used to adjust the air flow in the blower frame (figure 4).

**Example 3:**  
Ergotronic console

Wherever it makes sense for a particular function, the entire press is represented graphically at the console in its actual configuration. An array of support graphics, eg for sheet travel through the printing units or details of blower settings, makes the sequences much easier to understand, as do the

command buttons which are now all identical. The switch to Microsoft Windows means that the console now incorporates an operating system that is unlikely to become obsolete in the long term and is sufficiently widespread for most operators to be familiar with the basic standard software. Consoles supplied by some of our competitors are still based on DOS, which was developed around twenty years ago and is now outdated. This alone severely restricts the options for graphical representation. The operating systems for all new KBA presses will have the same common platform, which is a big advantage when working out manning schedules. Despite the advanced level of automation, manual operation of key functions is still possible in order to maintain production in an emergency.

The Logotronic system enables settings to be transferred collectively from one Rapida to another in the same press room. So the machine scheduled to print a repeat job can be preset automatically and precisely, regardless of whether it was used to print the original run.

**User-driven advances**

Our new control concept is based on direct feedback from press operators. Having carried out a survey among customer staff we set up a task force staffed by press users and members of our R&D department, with a brief to design the optimum operating and automation system. In view of the higher production output our new presses deliver, one of the task force's primary goals was to gain more time for quality assurance. This is only possible if routine processes such as press presetting can take a back seat to monitoring and control activities. With the new Rapida 105 and 205 presses that is precisely what they do.

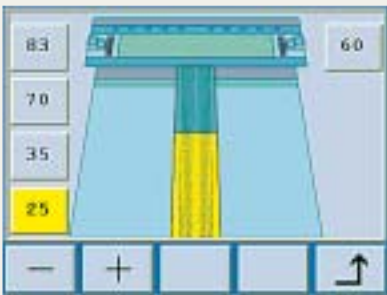
Martin Dänhardt/Karsten Grossmann  
Daenhardt@kba-planeta.de

Figure 1



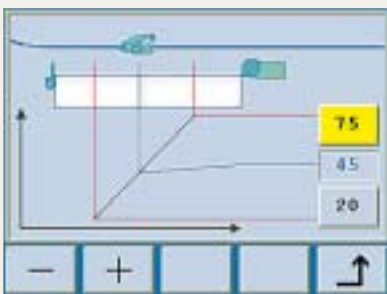
The main menu on the clear-text display at the infeed printing unit. All the submenus for presetting the feeder and the infeed can be accessed from here

Figure 2



Suction setting for the belt at the feed table. Blower/suction air at each individual phase of the sheet run at the infeed and suction-belt table can be adjusted using the + and - keys. The exact settings can be stored and downloaded for repeat jobs on identical stock

Figure 3



Graphic display at the delivery for setting the gripper timing

Figure 4



The blower frame above the delivery pile is also set via the clear-text display. The data can be accessed for repeat jobs

PLV in Varese runs one of the longest packaging printing presses in Europe

# Rapida duo puts on superb performance

The initials in the name of Italian packaging printer PLV in Varese (Lombardy) stand for Produzioni Litografiche Varie. Despite this indication of product diversity by the ISO 9001-accredited enterprise, PLV basically specialises in the production of high-grade packaging and displays.

**P**LV offers an all-in service embracing what it terms “contract bagging”, which involves filling flexible packaging with products such as detergents or cleaning agents and inserting them manually, semi-automatically or automatically into fold-in cartons or displays.

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*Big clients and small markets*

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Five years or so ago the company was given a complete change of management when it was taken over by the Goglio group. Luigi Goglio, a skilled and dedicated engineer who had previously run Goglio's flexible packaging division, placed his knowledge and experience at PLV's disposal as company president. The other members of the board are general manager Dr Francesco Tofani, head of production Matteo Piller d'Adamo, and head of sales Carola Goglio, the last two also engineers.

Two-and-a-half years ago PLV invested heavily in every aspect of production, bringing the company up to speed with current and anticipated market demand. Automation, standardisation, productivity and quality enhancements are the company's declared goals. The loyalty of its multinationals and its parallel policy of addressing niche markets virtually guarantee strong growth in both domestic and foreign markets.



*New management and cutting-edge KBA press technology in large-format sheetfed offset have proved a recipe for success in the international packaging market. Pictured here, from the left: general manager Dr Francesco Tofani, president Luigi Goglio, head of sales Carola Goglio and head of production Matteo Piller d'Adamo*



*At 28 metres, the eight-colour Rapida 142 is one of the longest size 6 packaging presses in Europe*

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## *Technological realignment*

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According to Matteo Piller d'Adamo, the focus of the technical realignment was the printing division. The changes he has implemented included a switch to a different press

The 160-employee company, which celebrates its 40<sup>th</sup> jubilee this year, ranks among the leading suppliers to the Italian packaging industry, serving major brand names like Henkel, Procter & Gamble and Lever along with medium-scale producers in the niche market for cake packaging (panettone).

with the two big Rapidas, one of them for seven colours and the other for eight, Piller d'Adamo has been able to realise his ambition to automate and standardise his production workflow, boost his production flexibility and enhance value-added with inline finishing. The Rapida 142 eight-colour for a sheet size of 1,020mm x 1,420mm (40 1/4" x 56") measures 28 metres (almost 92') in length and is thus the longest packaging press in Europe.

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## *Tandem configuration optimises workflow*

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“Our underlying aim was to optimise the entire workflow,” explains Matteo Piller d'Adamo. “We believe that the tandem configuration we finally chose, which is a fairly common phenomenon in commercial web offset but rare in sheetfed, is the most efficient way possible of integrating the two new presses into the production process. The size 6 Rapidas have given us an amazing level of flexibility. They are both equipped with coaters, a 2.6 metre (8'6") delivery extension, automatic plate changers and a CX package for printing cartonboard. They are controlled from two adjacent Ergotronic consoles and are linked online to a central Densitronic S workstation for densitometric and colorimetric quality control. The central controls for production





scheduling and quality assurance are also located between the two presses, so the operating crew always have the presses within their field of vision. Another advantage of the tandem line-up is that it reduces the amount of legwork required during job changes, which made it instantly popular! In addition to a pile logistics system at the feeder and infeed we installed an automatic pallet feed developed in association with an Italian manufacturer, Diesse in San Pietro, Bologna, and this has helped to streamline the production flow."

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*Value added  
with hybrid inks*

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He continues, "Both the Rapida 142s are engineered for the use of hybrid inks. Prior to taking the plunge we got together with Epple and Vegra and carried out a series of trial production runs. We are now reaping the benefits of this intensive development work. Specs for the two presses included coaters plus IR, hot-air and UV dryers which enable us to offer a choice of finishing options in an even better quality than before. We use aqueous coatings, primer and UV coatings to enhance our overall product quality. But having seven or eight printing units at

*High-automation tandem print production: the two Rapida 142 press lines, which run in two and three shifts a day, deliver a consistently high print quality on paper, cartonboard and microflute*

*Founded in 1964, PLV has a payroll of around 160 and is one of the leading suppliers to the Italian packaging industry. Its customer base includes Henkel, Procter & Gamble and Lever along with medium-size enterprises in niche markets such as cake packaging*



*For head of production Matteo Piller d'Adamo (top right) and his press crew, the switch to KBA has delivered a big improvement in output and flexibility and an ease of operation previously unimaginable*

our disposal also allows us to print gold and silver in one pass."

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*Successful alliance*

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Matteo Piller d'Adamo had high expectations of the technological realignment, and is happy to report that they have been fulfilled one hundred per cent: "We decided to switch to KBA only after careful deliberation, because we believed that the technology embodied in the Rapidas is not only sim-

pler and more logical but also delivers a better performance. I spent a long time in Radebeul with our company president Luigi Goglio, who is a seasoned engineer. We checked out the quality of the parts production and assembly and found that the standards were first class."

He goes on, "It was obvious that the Rapida presses offered some substantial mechanical advantages as well. They are engineered for high quality, print with absolute precision

and zero vibration and are remarkably easy to operate, despite all their high-tech components. Working closely with KBA in Germany and with KBA-Italia on site during project planning and the installation of the two big press lines, we were able to draw on the professional services of a competent, experienced and well-functioning team. And as for automation and networking, here, too, KBA worked to our individual specifications."

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*Persuasive arguments*

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"Our press crews have profited perhaps the most. They have never known presses that are so easy to operate. Working in two and three shifts a day we can maintain a consistently high standard of quality on substrates ranging from 90gsm paper (61lb book), to 500gsm (19pt) cartonboard and G-flute even at production speeds of more than 12,000 sheets per hour. A 30% reduction in makeready time and a 20% increase in production speed are pretty persuasive arguments in favour of switching to KBA."

PLV is already planning its next acquisition. Says Matteo Piller d'Adamo: "We are now looking for smaller presses that will enable us to address the trend towards shorter runs, averaging say between 1,000 and 50,000 sheets. This will give us even greater flexibility in scheduling print jobs. No doubt KBA will come up with some equally persuasive technology for smaller formats as well."

Gerhard Renn  
braschi@kbaitalia.it



*Wing Hung and STS bring Rapidas to the centres of the textile industry*

# Rapida 105 will hot up the pace in tropical Sri Lanka

*For Chinese print enterprise Wing Hung and one of its affiliates, Shore To Shore (STS), this year's Drupa was a good opportunity to sign contracts with Koenig & Bauer for an additional four Rapida sheetfed offset presses. The dynamic focus of this loyal KBA customer*

*on the growth centres of the international textile industry is also enabling the blue-and-grey Rapidas to boost their global presence by moving into countries where they might otherwise not have been found so soon.*



*The delegation from Wing Hung and STS in front of the new Rapida 105 on the KBA stand*

**B**esides supplying its plants in Dhaka (Bangladesh), Chennai (formerly called Madras, India) and Istanbul (Turkey), STS has earmarked one of the latest presses for its operations in Colombo, Sri Lanka – the first Rapida to come into service in the country.

The 15,000sph B1 (49½") Rapida 105 universal for STS will be configured as a six-colour coater with extended delivery. It will feature nonstop systems for the feeder and delivery plus additional sheet guiding elements between the units to enable it to print board

as well as paper. The press package also includes an Incline ink-pumping system, Densitronic S colour measurement and control for quality assurance and documentation, and Logotronic Basic to enable primary data from pre-press to be used directly for press pre-setting and job records.

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*Among world's biggest Rapida users*

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At present, Wing Hung and STS operate a total of 20 Rapida presses, comprising more than 80 printing units and 12 coaters, plus one 74 Karat



*John Lao (right), managing director of Wing Hung, with KBA sales director Dietmar Heyduck*



DI press, placing them among the biggest users of KBA sheetfed worldwide.

Wing Hung alone runs 17 of the Rapidas (70 units, 10 coaters) and the Karat at its Chinese production plants in Dongguan and Shanghai, which together boast more than 50,000m<sup>2</sup> (540,000ft<sup>2</sup>) of production space and employ over 1,800 people. A letter of intent was recently signed for a second 74 Karat.

Rather surprisingly, when top managers from the two companies' various facilities travelled to Germany this year, it was the first time they paid a visit to Radebeul.

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#### Networked printing with the 74 Karat

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Wing Hung and Shore To Shore's objective in boosting their global printing capabilities is to offer brand manufacturers, most of them from the clothing industry, an identical standard of quality and workflow excellence irrespective of location, plus unbeatable logistics.

Feasibility and quality tests are currently being conducted to compare the performance of the 74 Karat in Dongguan with



*KBA executive vice president for sheetfed sales, Andreas Mössner (2<sup>nd</sup> left), and Beauno Fernando, managing director of STS Sri Lanka, shaking hands on the deal at Drupa 2004 in Düsseldorf. Looking on (l-r) are KBA sales director Dietmar Heyduck and vice president Jens Junker; Wing Hung managing director John Lau and STS production director Jonny Fernando*

that of another press located in the UK. The Karat will also be used to print plastic labels, including lenticular film. The software, provided by HumanEyes, has already been installed. Since a large proportion of the jobs printed entail special colours, the 74 Karat's ability to reproduce Pantone colours with CMYK inks was a compelling factor in its favour.

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#### Global player with local presence

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For STS, flexibility in handling a broad range of substrates, comprehensive quality monitoring and fast make-readies are key criteria when it comes to ordering a new press. The new Rapida 105 Universal in Colombo is to print both labels and packaging for the

clothing industry. This demands the ability to handle a wide range of substrates, from paper to board and even plastics, in ultra-short runs. STS has found that Rapidas are ideal for the job.

Wing Hung and STS have expanded their presence in Asia, Europe, North and Central America. In 1999 Wing Hung achieved ISO 9002 quality certification. Eight of STS's manufacturing facilities, which operate in major clothing markets worldwide, have followed their example. Wing Hung and Shore To Shore's main products are barcode and variable information labels, tags and packaging, which include folding cartons, price and brand tags and adhesive labels using various substrates and materials. With manufacturing locations in most major garment manufacturing countries, retailers and branded apparel companies need only contact one supplier for their entire merchandise identification and packaging needs. Wing Hung and Shore To Shore provide a local service, while the global network helps cut costs and response times.



*A Rapida 105 universal six-colour press with coater and delivery extension, similar to the one pictured here at Drupa, will be shipped to STS in Colombo, Sri Lanka*

*Martin Dünhardt  
Daenhardt@kba-planeta.de*

Worldwide interest in super XXL sheetfed

# Giant Rapida 205s boost UK firepower

Print demos on the world's first Rapida 205 superlarge press at Plakattfabrik Ellerhold during the pre-Drupa open house organised by KBA Radebeul at the end of March, and customer tours to the second user, TeNeues in Kempen, while the trade fair was running, have sparked worldwide interest in these high-tech giants.

**T**he first 15 presses are destined for Germany, Italy, France, Spain, Switzerland, the USA, Russia and the UK. The overwhelming response from printers of posters, POS displays and other large-format products has exceeded all our expectations, causing us to extend the initial series scheduled for 2004 and 2005. The Rapida 205's superiority with regard to the range of printable substrates, maximum format, choice of equipment and level of automation has brought orders from printers who previously had not featured on our books.

*Augustus Martin  
expands 21-strong KBA fleet*

In the UK, the first to sign up was Augustus Martin, the country's largest producer of point of sale material and outdoor media. The London Docklands group has also taken an option on a second Rapida 205.

Through a total first phase investment package exceeding £3m (\$5.5m) Augustus Martin will be reinforcing its leadership in retail and brand communication by expanding and enhancing its existing super-large sheetfed capability.

Joint MD Lascelle Barrow comments: "All our investment decisions are based on identifying customer needs and delivering cost or service benefits to them – the 205 will fit perfectly with that aim."

The first Rapida 205, a five-colour UV machine, will be delivered to Augustus Martin's main London plant and will be



*Giant Rapida 205 presses like the one pictured here at TeNeues in Kempen, Germany, have been snapped up by Augustus Martin and Capital Print in London plus a string of other large-format printers*

the largest sheetfed press ever installed in the UK. It will also be the world's largest UV sheetfed offset press, as capable of printing on plastic as it is on board and paper. The new kit will complement Augustus Martin's existing 21 Rapida units which are spread across 105 and 162 models.



*Capital Print MD David Gill (r) signs the Rapida 205 deal with KBA UK MD Christian Knapp*

*The new Capital Print factory in Stratford, London E15*



*Augustus Martin's plant in east London*

*Capital Print  
switches to KBA*

Capital Print, the leading London-based print and POS company, will celebrate its 25<sup>th</sup> anniversary next year with the installation of a Rapida 205.

Recently relocated to new 12,500m<sup>2</sup> (134,000ft<sup>2</sup>) premises in Stratford, London, the company now has the space to expand and enhance its client services. In an investment of £4m (\$5m), the four-colour Rapida 205 is fitted with a coater, dryer and plastic plus CX package. It will deliver benefits to clients in terms of efficiency, flexibility and the ability to print on a wide range of paper, board and plastics.

For Capital Print, a long-time MAN Roland house, the Rapida 205 indicates a switch in favour of KBA's acknowledged supremacy in large format and its history of success with the Rapida 162.

"We have nothing against MAN Roland," says managing director David Gill, "but KBA can offer us the various sizes of presses we require for the future. The 205 is another element in our three-year strategy to provide one of the most modern and efficient printing facilities in the UK."

The new site enables Capital Print to plan separate litho, screen and digital printing areas, a state-of-the-art CTP department, computerised storage and warehousing facilities and comfortable client suites.

*Klaus Schmidt/Terry Ulrick  
Klaus.Schmidt@kba-print.de*



New business model

# HGO now guarantees its secondhand machines



The market for secondhand printing equipment has seen a lot of changes in recent years. In a new departure, Holland Graphic Occasions (HGO) in Wieringerwerf, Netherlands, a KBA subsidiary that handles the sale of secondhand printing equipment worldwide, has started providing warranty certificates similar to those already available for secondhand vehicles.

**H**GO, which became a member of the KBA group in 2001, was founded 25 years ago. In that time the secondhand machinery business has evolved out of all recognition. "Back then, it was just a matter of buying and selling," explains one representative. "You bought a press and sold it on in almost exactly the same condition." Today, most of the presses are shipped back to the factory, where they are given a thorough inspection, completely refurbished and subsequently subjected to rigorous testing. The purchaser is then issued with a warranty certificate.

## Expanded activities since acquisition by KBA

In April 2003, two years after HGO's acquisition by KBA, the existing management was replaced by Wolfgang Kretzer as managing director and Anne

The surfaces are blasted with carbon-dioxide snow to loosen ink, varnish and oil



HGO maintains a team of twenty fitters to refurbish the presses

Paling as financial director. Originally the company specialised almost exclusively in sheetfed offset presses and finishing equipment, but it has since added coldset newspaper presses to its repertoire. HGO now finds customers for most of the secondhand printing presses that KBA repurchases, negotiating transactions all over the world.

## Cleaning with carbon-dioxide snow

The labour involved in cleaning and overhauling secondhand machinery can vary enormously. Sometimes all that is needed are a good clean and a few minor repairs. Cleaning is a pretty spectacular process. The press is erected in a well insulated room where it is blasted with high-pressure carbon-dioxide "snow" (dry ice) at -67° Celsius, just a few degrees above its sublimation temperature. This loosens all the dirt (ink, varnish, oil), making it



The presses in the halls at HGO are in various stages of assembly and disassembly

easy to remove. The electronic systems must be treated with the greatest care. The next step is to touch up the paintwork. Once they have been degreased all the visible parts are repainted in the original colour and the press looks like new again.

## Highly experienced assembly team

After that the inner workings are subjected to a ruthless scrutiny. The team responsible is made up of fitters with extensive experience and an intimate knowledge of almost all types of printing press and finishing equipment. HGO employs a total of twenty fitters. They decide which parts must be exchanged and which ones can be repaired. Original parts are ordered from the authorised OEM suppliers. The control systems and other systems are frequently updated: since 1995, for example, all KBA sheetfed offset presses are given a CIP3

upgrade and can also be retrofitted with the relevant software updates.

## (Almost) every wish fulfilled

"A lot of customers give us precise specifications of what they want," says Wolfgang Kretzer. HGO then has the task of finding a suitable press. Since it is not always possible to come up with a press that meets all their specifications, we take them through a shortlist of the ones on offer to see whether any of these would be acceptable. We generally manage to find a satisfactory solution."

The Fogra test is a standard part of the pre-shipment testing procedure following refurbishment. The warranty certificate gives the buyer the confidence that the press will function as specified.

Wolfgang Kretzer  
Kretzer@kba-planeta.de

Woodford Litho, Essex, with new 48pp Compacta 618

# Think fast, think wide, think KBA

Woodford Litho, a leading UK magazine and catalogue web offset printer with its manufacturing plant at Witham in Essex, has proved that its thinking is both wide and fast and that its thinking is KBA.



Woodford Litho is a successful family business with a progressive investment policy



Managing director Simon Fox (l), pictured here with Christian Knapp, managing direktor of KBA (UK), is delighted with his new Compacta 618

The company and Simon Fox, its managing director, are successfully illustrating the wide and fast maxim with some superb service from its new double-circumference Compacta 618 four-unit 48pp press. The decision to go "wide" was taken back in 2002. "The move to wide format, up to 1,450mm (57") on the Compacta, was one we just had to take," says Simon Fox. And as for speed – by the spring of this year Woodford Litho's pressroom

was achieving 42,500 revolutions per hour, a complete makeready in 35 minutes and a complete plate change in less than 8 minutes! Now the company is targeting 45,000rph. "We are delighted with the press and the regular speed it is achieving, but we believe it is capable of a little more," says Fox. "At 1,240mm (48<sup>3</sup>/<sub>4</sub>") cylinder circumference, this represents a 15.5mps (3,050fpm) web speed and that is clearly the fastest commercial web press in the UK today."

## Installation via Webcam

Woodford Litho is confident that it has chosen well with KBA, confident in its product quality and the colour magazine and catalogue markets it serves. That confidence, and the company's economic stability, was in evidence when it paid cash for the Compacta.

The press came with semi-automatic plate loading, Pastomat RC reelstand, cantilevered superstructure, high-speed P5 folder with twin choppers and a Logotronic press management system. The installation programme through to the beginning of this year went very well. Simon Fox even organised a continuous Webcam allowing his customers and suppliers to see the progress of the installation live on the internet.

## Improving competitiveness

In April the company opened its doors to the Web Offset Forum of the British Printing Industries Federation. Over 25 top directors and man-

agers from the UK's leading web offset printing companies came to watch the Compacta 618 in action. The press behaved brilliantly and the high-calibre audience was greatly impressed. After only 700 revolutions the Compacta was producing saleable copies. From this very low start-up waste it was ramped up to 42,500rph.

The Compacta installation was a great fillip to Woodford Litho's staff of 50 and good news for the local community. The company takes great pride in making a contribution to the local environment whilst improving competitiveness and safeguarding jobs. That contribution from the Compacta includes less paper consumption, maintenance-free drives, energy savings and low-alcohol operation.

## Progressive investment policy

KBA beat off strong competition to win the order. Simon Fox comments: "I had a genuine choice between two fine manufacturers but I am confident I have chosen the better one." The Compacta replaced a long-serving 16pp press and was part of a progressive investment policy that saw the company also invest in workflow and a CTP system.

The company was founded in 1934 by Simon Fox's grandfather and traded initially in East London as Fox Printing Press. Woodford Litho is today a £7.5m (\$14m) turnover company deriving some 50% of its turnover from group sister publishing companies and earning the other half from the open commercial market.

Terry Ulrick  
cknapp@kba-print.co.uk



Members of the British Printing Industries Federation Web Offset Forum were greatly impressed by the performance of the press



Console upgrade for Compacta 101 and 214 in Belgium

# Retrofit package for Drukkerij Grafix

Belgian commercial printer Drukkerij Grafix, a major provider of promotional print to the Benelux market, launched an investment drive earlier this year to upgrade its production technology with additional equipment and a new KBA press. The Dessel-based company is part of Grafische Groep Bongaerts.



Lining up for a photo at Drupa after signing the contract (l-r): Karl-Heinz Stichling, head of customer services at BAS, Uwe Jessberger of KBA after-sales service, Bart and Tom Bongaerts, joint managing directors of Drukkerij Grafix, and Dr Ulrich Strunz of BAS management

A new building with 3,000m<sup>2</sup> (33,000ft<sup>2</sup>) of floor space has been inaugurated at the company's existing premises and contracts inked for a Compacta 408, an environmentally-friendly regenerative afterburner, finishing equipment to follow on from all the press lines, a new cooling system and colour density control. Four CTP units and two of Agfa's ApogeeX pre-press workflow systems will support a digital workflow and replace the existing plate-setting system with film.

Drukkerij Grafix is upgrading the console technology for its existing commercial presses, a Compacta 101 and 214, with a retrofit package supplied by KBA in tandem with Baumüller Anlagen-Systemtechnik (BAS). The package gives

legacy press lines a new lease of life by cutting makeready times and enhancing cost-efficiency.

## All-in solution

The existing OS/9 console technology for the two presses will be upgraded with a Baumüller process manage-

ment system, BPLS. The console will then encompass two identical OPC servers with redundant operation. The register PC will furnish a link to digital pre-press via CIP3 and an interface to the colour-density controls.

The modular design of the presses enables them to be updated on a continuous basis to

address changes in customer needs. The innovative remote maintenance system can be activated at any of the BPLS computers and enhances machine reliability by supporting the high-speed location and analysis of malfunctions via direct access to the control CPU. Drukkerij Grafix is planning to introduce a roster of support activities, eg updates and training for service personnel, via the internet. Retrofitting each press takes just a few days, since hardware modifications are only necessary in a limited number of areas.

Bart Bongaerts, proprietor of Drukkerij Grafix, comments: "The upgrade in control and production technology will enable us to respond with greater agility to market demands and offer our clients a much better service and faster turnaround."



Drukkerij Grafix' technology upgrade includes a new KBA Compacta 408

Uwe Jessberger  
Uwe.Jessberger@kba-print.de

Unimac's attack

# Closing the loop

With one of the most unique mixes of equipment under one roof on the East Coast, offering digital variable data printing all the way up to full-web and 78" (1,981mm) sheetfed printing capabilities, Carlstadt, NJ-based Unimac Graphics is fighting to differentiate itself from competitors in a very price-sensitive New York market.

**G**eorge Amann knows a trend when he sees one. Being a mere six or seven miles away from Manhattan has a way of keeping a commercial printer like Unimac Graphics in touch with the largest agencies, publishers, pharmaceutical and health care companies in the country. Amann built what was then Union Graphics from his basement in 1979. In 1981 he rented 2,000ft<sup>2</sup> (186m<sup>2</sup>) of space, took on some partners and dived head-first into print work for trade and commercial accounts. He bought out his partners in 1985 and rode a boom in growth through 1995.

Amann then made a bold move by acquiring MacNaughton Einson Graphics in 1999, which catapulted Unimac Graphics into the \$35 million sales range and gave the newly

christened company another capability: large-format printing such as posters, banners, billboards, point-of-sale and point-of-purchase.

Unimac took another key step with the addition of a 64" (1,630mm), six-colour Rapida 162a sheetfed perfecter with inline UV coater in 1999. But when Amann installed a 40" (1,020mm), six-colour Compacta 215 16-page heatset web offset press, the company came full circle. It is the first such KBA web press to be installed in the United States – it came online in February 2003 – and is churning out book covers, direct mail, posters, publications and pharmaceutical materials to go with its roster of traditional products such as financial printing, point-of-purchase retail and high-end corporate communications.



Unimac Graphics executives shown (from the left) are: George Amann, Steven Rickett, Keith Barreiro and Charles Amann

## Web vs 40" sheetfeds

"We believed it was a marketplace that was going to grow – as the 40" sheetfed market

deteriorated, people would get more involved in web printing. Webs have become so technologically advanced that start-up costs on each job are minimal. Both web offset and digital printing are cutting into the 40" sheetfed market." Not that Amann is worried in that regard; he has all the bases covered. In summer 2002 Unimac created Strategic Content Imaging (SCI), a digital division for on-demand and variable data printing in up to six colours, as well as distribution and internet-based inventory access. It has provided another tool for Unimac in a regional market that demands a large tool belt.

"There are lots of opportunities in the tri-state area, but there's also intense pricing pressure," Amann says. "It



Unimac workers standing at the folder section of the Compacta 215



seems every company is re-evaluating its print needs or repurposing its business. With SCI we learn about our customers' product mixes and show them how they can take a database and, instead of printing it on a traditional offset machine, print it on a digital press on-demand to create zero obsolescence. We are a solutions-based company. We try to understand their needs, globally, then we provide solutions to help them reduce their printing costs and obsolescence, and literally help them control their graphic expenses."

Currently, the company generates \$63 million in annual sales backed by an employee work force of 225. Unimac boasts 146,000ft<sup>2</sup> (13,564m<sup>2</sup>) of manufacturing space at its Carlstadt, NJ campus, which has served as the company's home since September of 1999.

#### *Sudden impact*

It is hard to ignore the impact that the new Compacta 215 web press has had on Unimac Graphics – a \$10 million spike in business, by Amann's estimate. Beyond that, the full-web press has given the company a high profile in an arena where it previously only boasted half-web printing capabilities. "The press has been running for about a year now, and we're operating it five, six days a week," notes Steve Rickett, vice president and director of manufacturing. "Our level of work has required that. The press is a very quick makeready machine that allows us to be highly competitive in a very tight New York-area marketplace."

"The Compacta has enabled Unimac Graphics to target some of the more dynamic growth markets, including direct mail, pharmaceutical, retail and consumer goods," says vice president of marketing Charlie Amann. "The 215 has enabled us to fulfil our strategy of providing a total service solution for our clients. We have one of the most unique mixes of



*The 16-page Compacta 215 press in action*



*Unimac Graphics president George Amann estimates that his firm's six-colour Compacta 215 has provided a \$10 million spike in business*

equipment under one roof on the East Coast. This truly allows us to differentiate ourselves from the competition and compete on larger, more sophisticated projects and product launches."

The web press installation was a bright spot in a difficult year for the printing industry, though it proved to be a hard-earned victory for Unimac Graphics. "We had a good year

in 2003, even with the intense pricing pressures," George Amann says. "We maintain loyal customers and we had to make sure our efficiencies and production were top-notch. The best way to increase profits is to reduce expenditures. Maintaining a technologically-advanced plant with the fastest and most quality-oriented machinery allows for increased production, which lowers cost."

#### *Process improvement*

Enhancing manufacturing and quality processes is an ongoing quest for Unimac, which is ISO 9001:2000 certified. The company has positioned itself to "turn on a dime," according to Amann, with little bureaucracy and immediate answers to client questions. The forecast for the remainder of 2004 looks very much like its predecessor, which is fine with George Amann. "We're not focusing on sales growth; we're focusing on becoming the best printing company we can be," he says. "Before we take on new business, we will make sure our loyal clients are getting the best quality, at reasonable prices, on time." Even so, Amann is keeping his eye on the future of new equipment, sending a crew of five to Drupa in Düsseldorf in search of the latest technologies. "We are a very strong company financially, so when we see a machine that can create new opportunities for our clients, we have the ability to purchase it," he says.

Charlie Amann feels the key for 2004 is seeing advertising rebound to its previous levels. "People said that the internet and e-commerce were going to spell the end of printing; we don't see that or believe it will ever be the case," he says. "But when the economy is tough and companies need to cut back, printing is one area that has been sacrificed. As the economy gets stronger, we hope that customers will once again realise the value of printed products. We can help clients fill a special niche they may not have seen previously. We try to better understand their businesses, and strive to find ways to help them increase the efficiency of their communications and reach larger audiences."

*Eric Cagle, Printing Impressions  
Erik.Rehmann@kba-print.de*

Offset Print Veneta (Verona)

# High-quality printing with FM

Frequency-modulated screening, or FM screening, has gained some keen advocates south of the Alps despite occasional scepticism with regard to the limitations of this application and the risk factors involved. Among Italian sheetfed and web offset printers, Offset Print Veneta (OPV) in Verona is one successful example of an enterprise which has progressively converted its entire production workflow to support this increasingly popular process.



Offset Print Veneta uses FM screening to produce cookery books like these along with luxury brochures, high-quality catalogues and glossy magazines

**P**roprietor Francesco Calderara and his partner Gildo Pellegrini are not just the print providers of choice among a wide-ranging clientele in Italy. Since they installed their first Rapida in 1989 they have developed the business into a top address with an international reputation for delivering a truly superb print quality. In that time Calderara has installed five more Rapidas – four medium and one large format. In 2000 the company expanded into web offset with a Compacta 215.

## Specialist for challenging printwork

OPV's customer base embraces industrial enterprises, the Arena in Verona and international book, magazine and art publishers. As a result the company's product palette is equally diverse, spanning high-quality fashion, cosmetics and art catalogues, luxury brochures for the automotive industry, glossy magazines and books with fine colour illustrations. OPV even contract prints for some of the big Italian printing houses when a job has to

meet the highest quality specifications.

## The stimulation of a challenge

Francesco Calderara's recipe for success is to hunt for niche markets that other sheetfed and web printers are unable or unwilling to take on because of the complexity involved. Calderara finds the challenge of completing such jobs successfully – and polishing his quality credentials in the process – enormously stimulating.

OPV's 16-page Compacta 215, which has an array of

inline finishing options plus a rotary sheeter after the folder, delivers an exceptionally fine print quality which, Calderara claims, "is comparable to that delivered by our Rapida presses. In fact, sometimes the quality of the prints off the web press is even superior." With the sheeter the Compacta 215 can print stock weights of up to 200gsm (134lb book). "We've even printed 250gsm stock successfully," he confides.

The winner of a string of international awards, Calderara is constantly on the look-out for ways to further improve the quality of commercial products



A luxury catalogue for Spanish car manufacturer Seat was the first web offset product that OPV printed successfully using FM screening

that must often be printed on substrates that are exceptionally problematical. Which is how he and his partner hit upon the idea of using frequency-modulated screening as a means of refining quality.

## CTP of the highest order

When it was launched in 1992, FM screening, which is also known as stochastic or random screening, was considered

OPV sees FM screening as a powerful weapon in the hard-fought battle for market share. Pictured here, from the left: Silvio Simeone of Studio Grafico, OPV printer Nerino Biondani and proprietor Francesco Calderara, and Dario Braschi of KBA-Italia





revolutionary, but the technical difficulties associated with implementing it without the aid of CTP caused it to fall from favour. Now, advances in CTP technology have changed all that. CTP systems like Creo's Lotem Quantum 800, which is used by OPV's pre-press provider Studio Grafico (Verona), have led to a renaissance in FM screening. Thermal printing plates, eg Kodak's Electra Excel, and more sophisticated, hybrid screening systems like Agfa's Sublima Screening, which OPV uses alongside traditional FM technology, have multiplied the options.

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*Brilliant  
image reproduction*

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Francesco Carderara says that, in his experience, FM screening delivers uniform colour gradations, a homogeneous, moiré-free image, smooth skin tones and fine details. And since there are no angles, screen widths or rosette effects, it can reproduce far more of these fine details. With FM screening, the dots are smaller and distributed irregularly across the image. More dots per any given area of image result in a higher resolution, greater depth and razor-sharp images. The copy-to-copy stability is also outstanding, ie there are no colour fluctuations throughout the entire print run. With modern CTP devices, Euroscale inks and the relevant colour management systems, the colour gamut in four-colour offset can be expanded by more than 128,000 colours. Most of the spot colours previously required can now be printed in CMYK, which eliminates the need for additional makeready and multiple passes through the press.

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*Intensive testing  
optimises entire system*

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But Francesco Calderara did not rush to adopt FM. "If you're going to use the technology successfully, you need to devote a lot of time and pa-



*Francesco Calderara spares no effort to enhance the quality of his products and production processes in order to outperform his competitors*

tience to understanding it and maximising its potential. We ran a series of tests with Studio Grafico using FM and hybrid screens on both our web and our sheetfed presses, in order to check the influence of inks, substrate, blankets and rollers. As a result we can now deliver an image quality that completely silences the critics. The first job we printed using FM



*Continuous advances in CTP, inks, substrates, blankets and rollers, coupled with exhaustive testing, have enabled OPV to utilise FM screening with remarkable success*



*The Compacta 215 at OPV has a sheeter and many other features that make it the perfect tool for addressing the needs of a quality-focused market*

was a catalogue for Seat, the car manufacturer. The quality was stunning. In fact the quality of just about all the jobs we have printed to date on our web and sheetfed presses using FM (furniture catalogues, cookery books) has been first-rate. This has encouraged us to promote the use of FM more widely. In web offset we print a dot size of 30µ, depending on the type of stock run, and in sheetfed offset even smaller than that, 20 to 10µ."

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*Hybrid screening  
eliminates drawback*

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He continues, "Agfa's Sublima FM screening technology gives us an even more sophisticated tool than classic frequency modulated screening. The hybrid screen eliminates the drawbacks of the random computation on which FM screening is based, which in the first generation led to graininess in mid-tones. The two screening processes, autotypical and stochastic, are com-

bined on one forme. The mid-tones are printed using the autotypical screen, while depth, very light and very dark areas are printed using FM. FM screening also helps to compensate for register differences in both web and sheetfed offset."

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*Use on all types  
of substrates*

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"The use of fine FM screens results in an outstanding print quality not only on coated and glossy art paper, but also on stock of an inferior quality, such as LWC, improved newsprint and uncoated stock. Makeready takes less time because the colour register can be set faster. And because there is far less colour variation and fluctuation, tonal values are more stable. We always check the specified tonal value curves with the customer both on paper and at the press, which means that last-minute corrections are no longer necessary. The print is an exact reproduction of the data content. And with presses as reliable as our Compacta and Rapidas, there is absolutely no need to try and influence the image through manual intervention, which in any case runs counter to our aim of standardising production."

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*Irrefutable evidence for  
sceptical customers*

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Francesco Calderara sums up: "We believe that FM screening, with its present level of sophistication, has enormous potential because it is faster, more reliable, cleaner and more exact than current conventional technologies. We have the print jobs to prove that it raises the quality standard even higher. And since this quality enhancement can be achieved at no lost of cost-efficiency, we are confident that, sooner or later, even our most sceptical customers will be won over."

Gerhard Renn  
Erik.Rehmann@kba-print.de

Two more KBA rotogravure presses for Cambrai

# Lenglet Gravure pursues fast-track expansion course

Business is booming at French print enterprise Lenglet Gravure in Cambrai. Just two years after entering the European gravure market it is spending heavily again on new kit. In 2005 and 2006 its two existing KBA presses will be joined by two identical ones to handle a big jump in orders.

**L**englet proprietor Jean Lenglet has been pursuing this corporate vision single-mindedly since 2001. "We are implementing an ongoing investment strategy with the aim of creating a cutting-edge printing plant for publication rotogravure," he explains. And he has put his money where his mouth is. The first press was commissioned in spring 2002 at the company's impressive new premises on a 130,000m<sup>2</sup> (32-acre) greenfield site. The second press followed a year later.

## Bold decisions bear fruit

The decision to embark on such an ambitious project during a global recession is typical of Lenglet's corporate philosophy. The company's management team, comprising Jean Lenglet, William Lenglet and Véronique Drain, bears equal responsibility for its successful implementation.

Says Jean Lenglet: "We realised that offset was fast approaching its limits and we were firmly convinced that gravure is the technology of the future. Gravure is the only cost-effective alternative to offset for high-volume, high-pagination print production. Modern, high-performance production plants are essential for handling customers' work to the quality standards and within the delivery time-frames they demand, and this is why gravure is the best solution. Practical experience during the past two years



Lenglet's management team of William Lenglet (3<sup>rd</sup> l), Véronique Drain and Jean Lenglet, who is pictured here with his wife Paulette, were given a warm welcome in Frankenthal by KBA project manager Bernd Bickel (l), sales director Christoph Müller, president Albrecht Bolza-Schünemann, sales managers Ursula Büse and Reiner Dluschek and deputy head of gravure Thomas Potzkai

has confirmed all our prognoses."

## Success in Europe for French gravure

He continues: "Our success has encouraged us to initiate the second phase of the project." The plant's location in Cambrai, north of Paris, is close to all industry decision-making centres. The printing plant, which offers 30,000m<sup>2</sup> (32,300ft<sup>2</sup>) of production space, had been designed from the start for a much bigger production capacity. William Lenglet explains: "We have a large and varied customer base. Most of the products we print are high-volume catalogues or magazines, so it is extremely important for us to offer wide, high-

speed printing presses with a high output capability. We have succeeded in making a name for ourselves in the European printing market after just two years production with our existing KBA presses."

## Targets firmly in sight

The first of the two big KBA TR10B press lines, which have a web width of 3,684mm (145") and a maximum cylinder circumference of 1,530mm (60<sup>1</sup>/<sub>4</sub>"), went live in spring 2002. Each press can print 144 A4 pages in one impression, at a maximum web speed of more than 15mps (2,992fpm). The web can be slit into 14 ribbons and the copy stream guided over two parallel deliveries, eg



Managing director William Lenglet is well pleased with his two existing KBA presses in Cambrai, and anticipates a huge production boost with two more identical presses



Jean Lenglet (r) and KBA president Albrecht Bolza-Schünemann signing the contract in Frankenthal for two more rotogravure presses

for 2 x 72 pages via the two folders. The presses are configured with three control consoles apiece and linked to finishing systems with a pallet robot at the end of each one. The fully automatic engraving lines complete an entire cylinder, across the full width of up to 14 ribbons, in 25 to 30 minutes, depending on the circumference.

The third TR10B for Cambrai is scheduled to come on stream in June 2005, the fourth, identical, press line will go live a year later. By then the company will have invested a total of €150m (\$186.6m) in its new plant.

Erik Rehmann  
Erik.Rehmann@kba-print.de



Maul-belser media federation implements major project

# First 4.32m gravure press heads for the action

The quantum leap in gravure technology announced early last year by KBA and German media giant maul-belser Medienverbund will soon be translated into copies per hour when the first of two TR12B

presses for an awesome web width of 4.32m (170") roll into action at maul-belser's production plant in Nuremberg, one of the biggest publication rotogravure operations in Europe.

**M**aul-belser has invested a total of €60 million (\$74.6m) in taking on board the technology to address the aspiring demands of its customers in a market driven by the need to enhance productivity and cost-efficiency on an ongoing basis.

## Intensive planning essential

Implementing the project within the stipulated three-year time-frame, and ensuring that each stage is completed on schedule, has entailed not only intensive planning, engineering and testing but also complex and detailed scheduling for the transport logistics, offloading and placing, erection and commissioning.

In addition to the two superwide gravure presses, each of which has one reelstand and eight printing units, the contract also specified the corresponding CT12 proofing press with four printing units. The presses feature compact, asymmetrical superstructures for 18-ribbon production, plus double folders and stitchers.

The first phase of the press installation began on 28 June and lasted approximately three-and-a-half weeks. It included transporting the first TR12B and CT12 aggregates from our factory in Frankenthal to maul-belser's printing plant in Nuremberg and then offloading, placing and pre-assembling them in two different halls. For this part of the project we drew on the competence and experience of Stuttgart-based systems service provider Scholpp Montage, which sent in a ten-man team of specialists to erect the two presses simultaneously. "The time frame we were allot-



The press aggregates, some of which weigh many tonnes, were lowered by crane and hoist through an opening in the roof of the production hall, where they were positioned to the millimetre using block and tackle

ted for these activities was extremely tight and demanded flawless co-ordination among all the parties concerned," says Heinz-Jürgen Unverzagt, head of our on-site crew.

The lorry drivers delivering the printing units and folders for the first TR12B and the CT12 proofing press had to demonstrate their manoeuvring skills time and time again. The press aggregates, some of which weigh 20 tonnes (22 US tons) or more, were hoisted

from the low-loaders by a tower gantry and lowered through an opening in the roof of the production hall, where they were positioned to the millimetre by two electrically operated 24-tonne block and tackle systems. The aggregates for the proofing press, which were just as weighty, were offloaded by a heavy-load crane and a 33-tonne industrial crane.

According to Dr Winfried Marquardt, managing director



The TR12B's web width of 4.32m is unique worldwide and heralds a new dimension in gravure technology at maul-belser



The lorry drivers delivering the printing units and folders for the first TR12B and the CT12 proofing press demonstrated their manoeuvring skills repeatedly



Low-loaders queuing up punctually to offload the presses at maul-belser's main production plant in Breslauer Street

of maul-belser Medienverbund, keeping to the schedule was absolutely crucial. "The cylinder manufacturing lines had to be modified and the auxiliaries and utilities installed prior to erection and commissioning. We have been delighted with the performance of both KBA and Scholpp to date. In the second phase, which starts on 18 February 2005, we'll be able to profit from the experience we've gained with the first machine, which should save some time."

Erik Rehmann  
Erik.Rehmann@kba-print.de

TR10Bs at Axel Springer

# Speedy giants

German publishing house Axel Springer's gravure plant in Ahrensburg is among the biggest in Europe, with a tally of eight KBA presses. The press crews are so proficient that the firm's most recent additions, two TR10B presses for a web width of 3.64m (143<sup>1</sup>/<sub>4</sub>" ), are now pumping out top-quality prints at well above their maximum rated speed.

**W**ith consolidation widely expected to pick up pace in the European gravure printing market, every operation is straining to carve out a position of advantage. The Ahrensburg printing plant has a strong hand here, thanks to the successful interplay of cutting-edge production technology and a highly motivated workforce – motivation due in no small measure to “uniquely comprehensive training,” as KBA project manager Bernd Bickel glowingly describes it.

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## State of the art

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The standard of technology incorporated in the two TR10B presses, and the level performance they deliver, place them at the pinnacle of KBA's achievements to date. The first press

came on stream in July 2002, the second, which is virtually identical, followed in January 2003. They form the centre-piece of a €70m (\$84.4m) investment package which also included an upgrade in forme manufacturing and three Tempo gang-stitchers from Müller Martini.

The TR10B presses are 34 metres (111'6") long, 14m (46') wide, including the cylinder stations on the drive side, and 10m (33') high. Each press is configured as eight printing units fed by one reelstand with a pre-tensioning unit and topped by a superstructure for a maximum of 14 ribbons through two V7-1000 folders. This enables up to 224 full-colour pages to be printed in one pass.

The maximum rated production speed specified in the



*The rotating slitter in the TR10B can slit the web into a maximum of 14 ribbons, enabling as many as 224 pages to be delivered in one pass via one or two folders*

contract was 57,000 cylinder rph, but since the first TR10B swung into action the press crew at Springer has achieved an increase of more than ten per cent, equivalent to a web speed of around 15.5mps (3,050fpm). This has given productivity an enormous boost and has even astonished our engineers in Frankenthal. Print manager Lars Meusburger is understandably proud of his team: “They really get the maximum out of our presses.”

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## Balancing on a knife-edge

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This is only possible if the manufacturer and the user work hand in hand. Bickel and Meusburger are well aware that at that level of performance they are balancing on a knife-edge. In order to maintain such a speed, all the parameters that can be influenced by the user must be absolutely spot-on.

The most important are the ability to operate the folder at maximum efficiency and a forme-manufacturing process that is equally efficient. Lars Meusburger explains: “With the increase in speed to more than 60,000 revolutions there is no room for manoeuvre in cylinder geometry and increment.” Cylinder increment, or cylinder stepping, refers to the gradual increase in cylinder diameter from the first recto printing unit to the last verso unit, in order to maintain the correct web tension.

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## No test unit possible

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Designers of gravure presses must rely to a large extent on their experience and on the assistance of on-site fitters – a form of collaboration which at KBA is “traditionally very good,” as Bernd Bickel knows from his 30 years' experience.



*The console for the TR10B: the press is operated by three printers and two helpers. At Drupa, in association with Siemens, one of the items of equipment KBA exhibited was a new-generation gravure console with an online link to one of the consoles for the new TR10B in Ahrensburg*



Since building test units would break the budget, the only chance design engineers have to try out new features is when a new contract is being processed. According to Thomas Potzkai, deputy head of the gravure engineering division at KBA in Frankenthal, “When we get the green light we really stick our necks out – and then have to print at the customer’s premises, where everything must function like clockwork!” In order to achieve the current web speeds, for example, KBA engineers had to completely reconfigure the printing units and extend the drying paths. This is because when the ink is applied to the web it has just half a second to dry before it enters the next printing couple.

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#### Carbon fibre rollers

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As web widths have increased, carbon fibre (CF) has been adopted for some of the rollers because its lightweight strength is more effective at counteracting deflection and the inherent vibration of the press line. Around half the 134 rollers in a TR10B are now made of carbon fibre.

Physical processes, such as the behaviour of the ink in the cells, are also more difficult to control at such high speeds. But the engineers in Frankenthal have done their homework well on the XXL presses for web widths of 3.5 - 4.32m (11’6” - 14’). As a result KBA is the market leader in rotogravure, with an installed base of more than 20 presses worldwide. Axel Springer receives vigorous support in optimising its production workflow, above and beyond the inductive training for its staff. After all, for KBA’s engineers and their product development, seeing what problems can arise is of the first importance.

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#### Exchange of views

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“This is the first time that we have experienced an interchange of this intensity,” says



*A gravure forme cylinder prior to removal from a Hell K6 automatic engraving line configured with 14 engraving heads*



*View of the delivery behind the TR10B in Ahrensburg. The mailroom is equipped with Print-Roll systems and Müller Martini gang-stitchers*

Bernd Bickel. Lars Meusburger concedes that there has been “a lot to learn” and “a lot of theories to prove” – even though Springer’s highly skilled staff boast decades of gravure experience. The installation before this one was a 2.4 metre (7’10”) wide press generation of which six lines still form the backbone of the press fleet. They date back to the era of central drives and main shafts. Dedicated drives have wrought a lot of changes in gravure. The benefits are undisputed – the ability to change speed without pushing up waste, for example – but they have also posed additional challenges. This is particularly true for the plant’s maintenance staff, who must work on dedicated drives along with 23-year-old switch cabi-

nets for the presses installed in the early nineteen-eighties.

According to Lars Meusburger, they have adopted a step-by-step approach to complex issues like the folder, register and cylinder geometry. He explicitly praises the “user proximity” of KBA’s specialist staff, which has resulted in a “focused and highly objective collaboration.”

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#### Faster makeready

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Operating standards at Axel Springer are necessarily high, not least because all the planning and production sequences are embedded in an IT-compliant network. The company programmed its production scheduling software in-house, installing a direct digital link to

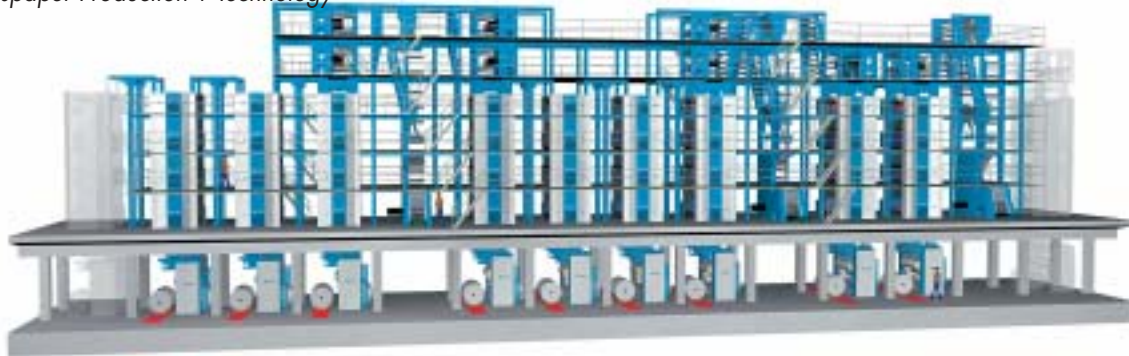
support the online transfer of job data to the control consoles for presetting the press, ribbon registration and the web monitoring system, with feedback of consumption levels.

The press presetting system supplied by KBA has helped to reduce makeready times at the new gravure press by almost half. As a rule, a complete job change – from the last to the first saleable copy – takes about 90 minutes, plus cleaning time as necessary. Changing the printing forme within a production run takes approximately half an hour. If only the black forme is changed the press can be restarted in less than 15 minutes.

Automatic forme manufacture and shorter makeready times have made gravure presses more competitive with high-volume heatset offset presses. Lars Meusburger has calculated that the minimum run length at which a gravure job is cost-effective is 200,000 copies. Of course the total page count must also be taken into account.

*(taken from a feature in “Deutscher Drucker”, issue 16/2004)*

Gerd Bergmann  
g.bergmann@publish.de



*Imprimerie Rossel in Brussels orders 6/2 Commander*

## Six-wide presses on the advance

From autumn 2005, *Le Soir*, one of Belgium's leading newspapers, will be printed along with a number of other publications on three six-wide Commander presses. Following initial sales in Switzerland, Imprimerie Rossel in Brussels, the newspaper division of Belgian media group Rossel et Cie, has become the third printing house to place an order for this new press.

**C**omprising nine towers of nine-cylinder satellites, nine reelstands and three jaw folders, the 6/2 Commander will be installed in a printing plant soon to be built on a four-hectare site in the new Portes de l'Europe (Gateway to Europe) industrial zone in north Nivelles.

### *Economic benefits of 6/2 configuration*

Jacques Valembois, technical director at Rossel, says: "We opted for the 6/2 configuration because it offers us a laundry list of economic benefits for our specific circulation size and copy structure: a single tower can print 24 instead of 16 full-colour broadsheet pages,

and on top of this it takes up less space, costs less, consumes less energy and can be operated by a smaller crew than a conventional 4/2 press. Apart from cutting the cost of expanding production capacity and colour impositions, the 6/2 Commander gives us much greater flexibility, for example by supporting a wide choice of layout options and the inline production of supplements. The innovative press design, with continuous lock-up slots, minigap cylinders, automatic roller locks and pneumatic lock-ups for the blankets and blankets plates etc offered a lot of compelling arguments, both from the technology point of view and for ease of operation, makeready and maintenance."

### *Transition to reader-friendly Berliner format*

For *Le Soir*, the new press signals the completion of a transition from the Nordic to the smaller, more reader-friendly Berliner format. At present the copies are trimmed down to the Rhine format by a trimmer located between the press and the mailroom.

Rossel et Cie, whose newspapers and weeklies are currently printed in Brussels, Charleroi and Liège, recently set up a new subsidiary, Rossel Printing, to staff the Portes de l'Europe premises. Rossel Printing will have around 160 employees and an annual sales target of some €40m (\$48m). The new Commanders will print more than 400,000 newspapers per night. Their daytime job will be printing weekly titles with a total circulation of more than three million copies.

### *Automated technology*

The three 6/2 Commander presses for Brussels will be erected on a concrete substructure. They will have a cylinder circumference of 940mm (37"), a maximum web width of 1,920mm (75½") and a rated output of 90,000cph in straight production.

The press package basically comprises:

- 9 Pastomat RC automatic reelstands,
- Patras A automatic reel handling and butt-end removal
- 9 towers of 9-cylinder satellites for 4/4 on 24 broadsheet pages,
- 72 couples with film inking units and spray dampeners, minigaps on the blanket cylinders, automated roller locks, continuous lock-ups slots and high-speed pneumatic plate clamps,
- 7 double turner bars,
- 3 cantilevered folder superstructures with four formers on two levels (the lower assembly with three formers side by side, the upper one with one former plus provision for two more) and
- 3 KF 7 jaw folders with a 2+2:7:7 cylinder ratio.

Automatic wash-ups for the blanket and impression cylinders, web aligners, cut-off register controls, ink pumping and cutting-edge console technology with ABB's MPS Production job-scheduling and press preset system plus RIP interface document the advanced level of automation. Provision has been made for the addition of ribbon and sections stitchers at a later date.

Dr Bernd Heusinger  
Bernd.Heusinger@kba-print.de

*After signing the contract at Drupa*





Computer-to-press for newspaper production

# CTPress or CTPlate?

## Cost-efficiency's the key!

At Drupa 2004 one of our major competitors claimed that "in future, all newspapers will be printed digitally." Is there really an alternative to the ever more popular CTP pre-press for newspaper production – or is this merely marketing hype for a technology whose economic viability for newspapers is unlikely to match its physical feasibility in the foreseeable future?



KBA demonstrated copy-to-copy digital imprinting on the title page of an exhibition newspaper at Drupa 95 using a Scitex inkjet system embedded in the superstructure of an Anilox-Express

**B**ack at Drupa 1995 KBA demonstrated on-the-fly individual imprinting on an Anilox-Express four-high tower featuring a Scitex digital inkjet system in the superstructure. Supported by an automatic plate changing system, each of the 700 copies that left the machine during the 20-minute demonstrations sported a different caricature and caption on the title page. Although this world first made a big impact in the industry it failed to catch on for three reasons: quality limitations (monochrome only, coarse screen), the reduced production speed during imprinting, and the relatively high cost of the hardware and ink. Graphic proof that technical and economic feasibility do not necessarily go hand in hand.

### On the market for 14 years...

The claim did not refer to digital newspaper production like that practised by Océ, in association with Hunkeler, for ultra-short runs of certain prominent newspaper titles, but to the on-press laser imaging of offset plates mounted in the press by hand. In other words, **direct imaging (DI)** or **computer-to-press** – a process which, far from being new, has featured in sheetfed offset since 1990 and in web offset since Drupa 2000, when MAN Roland unveiled the Dicoweb that images directly on the cylinder, with no plates.

*Far from being new, the process trumpeted by our competitor has featured in sheetfed offset since 1990 and in web offset since Drupa 2000*

At Imprinta 1997 we unveiled the first B2 DI offset press, the 74 Karat, in a joint venture with Scitex. Since Drupa 2000 we have shipped more than one hundred of these presses, gaining valuable experience in computer-to-press along the way. When we purchased Scitex' stake in this joint venture in early 2002 we acquired a string of direct imaging patents along with the relevant know-how. So why haven't we launched a package for newspaper presses as well?

*...but still not cost-effective for newspapers*

Imaging technology and consumables have come a long way, and as one of the industry's most innovative players we never reject a potential application out of hand. Computer-to-press for newspaper production has thus long been a focus of KBA research, with various projects being pursued, among them a laser imaging head which has been successfully tested in a press-room environment. New-generation presses like the Cortina offer the option of retrofitting such imaging heads at a later date. However, although we have the technological capability, we have decided not to offer a DI option for newspaper presses at present, but to focus instead on applications with much greater short-term potential for cutting production costs.

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*What are the drawbacks  
of CTPress?*

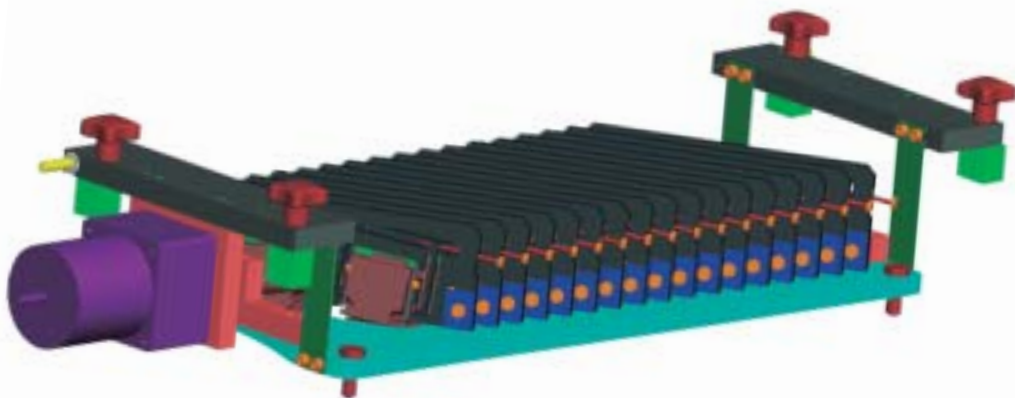
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The main ones are economic.

Capital investment costs are very much higher than for off-press imaging. Assuming current CTP prices and allowing for potential cost savings from the lower resolution specs for newspapers of 1,200dpi, we calculate a minimum initial investment cost of €500,000 to €600,000 (around \$600,000 - \$725,000) per four-high tower, or €1.5m to €1.8m for a 48pp section. It is highly improbable that such an enormous upfront expense can be recouped by savings elsewhere within an acceptable time-frame. To this must be added the limited service life of laser diodes and the high maintenance costs for such a sensitive technology, which in view of the large number of printing couples and imaging bars (24 in a 48pp press) are an exponential of those for an offline CTP system. Ambient conditions (ink mist, paper dust etc) are also likely to drive up maintenance costs compared to CTP in a more sterile pre-press environment.

Tellingly, even the aforementioned proponent of digital newspaper production concedes that re-imageable plates suitable for newspaper production (relatively long print runs, extremely high production speeds) will not be available within the next three to four years. Mounting processless plates manually and imaging them on-press simply cannot compete with offline CTP in tandem with high-speed automatic plate changing. Nowadays, newspaper printers must calculate in minutes and cannot afford to experiment with economically dubious technologies.

*74 Karat DI offset press with direct imaging via two laser heads. More than 100 of these presses have been sold since Drupa 2000*



*Laboratory trials in the 1990s exploring cost-effective methods for imaging newspaper plates on press using inkjet were abandoned because the resolution attainable at that time was too low. This may well change in the future*

Despite years of coldset research, the maximum service life of the imaged cylinder surface on the only DI web offset press currently on the market is just 20,000 - 25,000 cylinder revolutions and therefore inadequate for newspaper production. The service life of plates will scarcely be any longer, at least initially.

The complex manufacture of re-imageable plates and sleeves makes them much more costly than conventional CTP plates for wet or waterless offset. On top of this, volume-focused plate manufacturers will no doubt be reluctant to cannibalise their sales of standard CTP plates by producing

re-writable ones, unless they can secure much higher profit margins.

A newspaper press has a minimum service life of 12 to 15 years. Innovation cycles for imaging technology, by contrast, are similar to those for computers, ie a product is outdated (and probably no longer functions 100%) after just a few years. Replacing all the imaging units in a large number of printing couples at such frequent intervals is much more expensive and time-consuming than replacing a few offline CTP systems.

In view of the large number of on-press imaging systems required for a single press line,



*Experimental laser imaging unit in our R&D lab*

each and every one must be 99.999% reliable if they are to safeguard newspaper production within a tight time-frame. Prospective users can judge for themselves whether such a level of reliability is realistic or not.

A medium-size newspaper consumes 600 - 1,200 plates a day. With eight plates per cylinder this would require between 75 and 150 imaging sequences per day. If just one plate is wrongly imaged, whether through a pre-press error or a malfunction, the whole procedure must be repeated. Production time is lost and the idle press becomes an overpriced imaging machine. That is no way to make a profit.

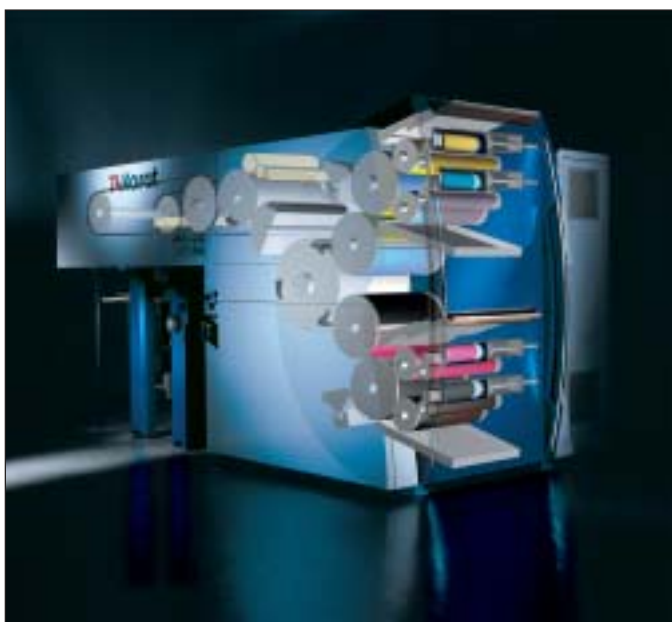
In the long term, the user is totally dependent on the press provider and thus unable to take advantage of better alternatives in the form of CTP, where rapid advances are being driven by competition among numerous providers.

The holes pre-drilled in the side frames so the press can be retrofitted with cheaper imaging units at some vague future date, if re-imageable plates

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*Tellingly, even the aforementioned proponent of digital newspaper production concedes that re-imageable plates suitable for newspaper production will not be available within the next three to four years*

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suitable for newspaper production eventually become available, do little to promote confidence among potential users and should be viewed more as a marketing gimmick.

Other “innovations” our competitor has claimed, eg colour register control via tags or colour preset using bitmaps, are already available on the market in a similar form and with the same level of effectiveness. And direct imaging does NOT solve the problem of fan-out on wide webs in four-colour production.

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*Already faster and cheaper  
with the Cortina*

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Proponents of computer-to-press for newspaper production are applying the technology prematurely to treat the outward symptoms of a central failing – a lack of standardisation – with ever more complex automation systems.

The Cortina, by contrast, tackles the root cause by eliminating dampeners and ink keys and hence the higher labour input, waste levels and quality fluctuations associated with them. Functions are automated only where substantial cost and time savings can be gained in terms of manning, makeready, maintenance and production conditions. Some examples include automatic plate changing, remote-controlled roller locks, glide-apart towers and speed-dependent cooling systems. With waterless offset, fan-out is no longer an issue.

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*Automatic plate changing in  
less than 100 seconds*

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With the Cortina, new plates can be fed to the optional **PlateTronic A** automatic plate-changing system and used

*A working model of the PlateTronic A automatic plate-changing system for the Cortina was exhibited at Drupa 2004. The system feeds plates to the changing units while the press is still running, enabling all 64 plates in a four-high tower to be changed in less than 100 seconds*



*The innovative Cortina, with its dedicated cylinder drives, could be retrofitted with imaging units if computer-to-press were to become a viable proposition*

plates disposed of while the press is running. The actual plate-changing sequence takes less than 100 seconds, whether for individual plates, all 64 plates in a four-high tower or all 192 plates in a 48pp section. The plates can be imaged and

quality-checked during the current production run. Technical precautions (bar-coding the plates or similar) virtually exclude the risk of plates being wrongly positioned. The blankets can be washed during plate changes.

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*Direct imaging does NOT solve the problem  
of fan-out on wide webs in four-colour production.*

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## Our conclusions

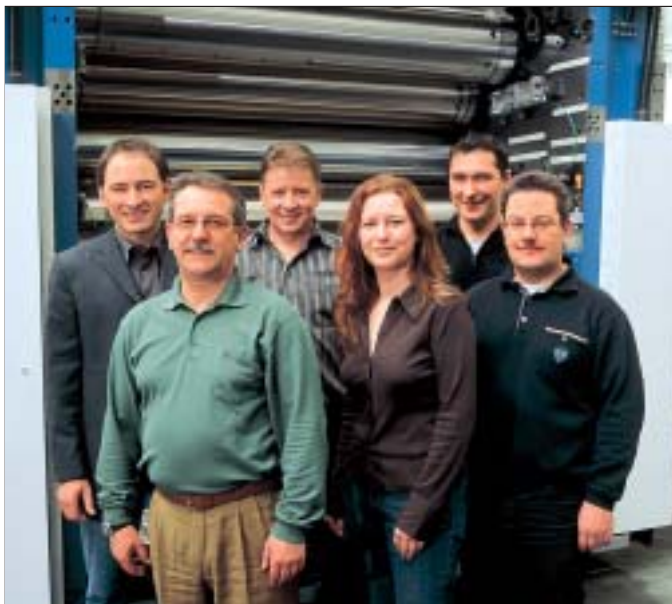
- For KBA, direct imaging is not a question of technical feasibility but of economics, practicality and timing.
- Computer-to-press prolongs edition changes and costs much more to install and maintain than offline CTP. This, on its own, makes the technology unsuitable for newspaper production in the foreseeable future.
- Our waterless Cortina, with its dedicated cylinder drives, could be digitally enabled if computer-to-press were to become a viable proposition.
- KBA imaging components represent the current state of the art. The image data flow can be controlled and the press linked to pre-press. Our internal machine communication systems have sufficient band-width to handle image data. Our modern, open-architecture console technology has the computing power needed to embed the press in a digital image data flow.
- Automatic plate changing on the Cortina supports the automatic transport of processless plates.
- Our cross-platform competence gives users the confidence to innovate. As in sheetfed offset, we shall continue to pursue this avenue of research so that we can offer CTPress for newspaper presses as soon as technological advance make it cost-effective.

Klaus Schmidt  
Klaus.Schmidt@kba-print.de

Enhancing customer focus and efficiency

## New, expanded training programme for web printers

Enabling users to make the most of their KBA presses is one of our top priorities, equalled only by our desire to provide the most advanced technology on the market. To this end we offer a customised training programme spanning a wide choice of basic and advanced courses plus specialist seminars on mechanical and electrical servicing, drive systems, automation and print technology for our entire range of web presses.



The members of our training team were hand-picked for their knowledge and expertise. The photo shows training supervisor Gerhard Knorz (front left) and co-ordinator Andrea Rothenbucher with, from the left, instructors Rainer Wassmann (drive technology), Ludwig Meth (mechanical systems), Rainer Breunig (reelstands, Patras and AMK drives) and Werner Gust (electrical systems)

**O**ur aim in expanding our training curriculum is to guarantee maximum efficiency in the operation and maintenance of press installations that have become increasingly complex in the course of time, and to enable press crews to familiarise themselves not just with the press technology but also with new processes and the workflows in which both are embedded. A new training centre equipped with cutting-edge technology and sophisticated training aids was inaugurated at our Würzburg facility at the beginning of the year.

### Anticipating future needs

"Dedicated facilities and the broadened scope of our activities allow us to address our

customers' needs with much greater finesse, enhancing the quality and effectiveness of the training we offer," explains Bernhard Harant, divisional head for newspaper presses, whose responsibilities include customer training on newspaper and commercial web presses.

A training plan is formulated along with the configuration of each new press. Class sizes are limited to a maximum of eight participants. All the courses include hands-on training at the press, underpinned with a thorough grounding in theory by highly qualified instructors.

"One significant change," continues Harant, "is that seminars on programmable logic controllers (PLCs) and Indramat or AMK digital drive systems, which previously had to

be outsourced, can now be held at the new training centre." Training manager Gerhard Knorz agrees: "This not only saves a lot of time but also makes us more flexible in adapting courses to individual customer needs." However, customer-specific basic training and practical instruction on press automation and workflow systems are still conducted externally by our automation partners, EAE and ABB.

### New training centre

The training programme includes special seminars on our Cortina, a benchmark press for the production of newspapers. Theoretical and practical courses acquaint Cortina press crews and pre-press operators with the capabilities of waterless technology.

Demand for training has risen dramatically over the past few years, in line with the increased sophistication and proliferation of KBA presses. In the first three months of the current year alone more than one hundred customer staff attended training courses at the new centre. "We have noticed an emerging emphasis on training among all our customers," observes training manager Gerhard Knorz. "Unrelenting pricing pressures and competition are forcing them to focus as never before on optimising their operational and maintenance practices. We are here to give press crews the necessary know-how and skills."

Customers can take advantage of this service for the entire life span of their press lines, for example with regular further training or instruction on upgrades, in order to maintain optimum efficiency, productivity and reliability. Individual requirements are accommodated wherever possible.



Hands-on training is just as important as learning the theory

Our well-equipped training facilities for electricians



Dr Bernd Heusinger  
Bernhard.Harant@kba-print.de



Workshop on waterless newspaper offset

# Development coalition “programs” progress

The interplay between new printing technologies and enhanced consumables still offers a lot of potential for enhancing quality and cost-efficiency and developing new applications. The key to success is a willingness to innovate, coupled with the systematic creation and pursuit of development “coalitions” among the relevant parties. One current example is the optimisation of waterless newspaper offset.



Driving advances – together: representatives from ink manufacturers BASF, Flint-Schmidt, Michael Huber München, Lindgens, Siegwerk and Sun Chemical line up with Elina Kalela of UPM, Peter Bauernschmid of prüfbau (4<sup>th</sup> l) Peter Benz (3<sup>rd</sup> l) and Georg Schneider (2<sup>nd</sup> r) of KBA during the Cortina workshop in Strasbourg

In the recent past KBA has collaborated in various fields (hybrid inking and coating, direct offset on corrugated, digital offset on plastic with oxidative inks etc) with a number of players from the consumables industry, demonstrating what can be achieved by pursuing a goal with persistence and determination, and not becoming side-tracked by the customary crossfire accompanying benchmark innovations in the marketplace. Other members of the graphic arts industry not directly engaged in this primary development work also benefit from the results.

## Standing still is a step backwards

In the medium term this will also be the case in waterless newspaper offset, a project which KBA has been pursuing tirelessly for the past five years in association with suppliers and prospective users, with the aim of promoting standardisation in newspaper production by making presses more reliable and cost-effective. But a development coalition must

have a well-defined objective and clear-cut methodology in order to achieve the desired results. Which is why KBA and fellow coalition member UPM Kymmene Stracel, a leading paper manufacturer and supplier to the printing industry, sent out invitations to a Cortina workshop in Strasbourg in June. Technical staff from six major ink manufacturers attended the workshop alongside personnel from UPM, KBA and a maker of inspection, measuring and test equipment.

A run-down on Cortina technology and the technical aspects of waterless newspaper offset by **Peter Benz** and **Georg Schneider** of KBA was followed by a paper on “*Optimum waterless coldset ink from the view of the paper manufacturer*” presented by Elina Kalela, manager in charge of research, development and technical service at UPM.

## Predictable results

A study by **Peter Bauernschmid**, managing director of prüfbau Dr Ing H. Dürner, a Munich-based manufacturer of

measuring instruments and materials testing equipment, was received with avid interest. Mr Bauernschmid, who had tested waterless printing inks from various manufacturers, now presented his findings. Keeping the data anonymous, he analysed the basic properties (tack, stability, printability, ink take-up, ink/paper interaction, initial tack, striking-in) of the inks and thus indirectly their suitability for applications in an automated production process. From the point of view of potential users it is interesting to note that, with careful analysis such as this, it is relatively easy to predict which new printing inks can be run with no problems on the waterless offset Cortina, and which still need to be improved.

## Avoiding unpleasant surprises

As far as the ink industry and end user are concerned, one major benefit of KBA's collaboration with prüfbau is that the suitability of a new printing ink can be measured and assessed impartially prior to its

adoption in the press hall, eliminating the risk of unpleasant surprises during production. For print entrepreneurs working to tight deadlines, this ability to have inks tested and approved prior to use helps to make the whole production process much more reliable. Similar tests can be conducted for blankets and paper, two other key parameters in the off-set process.

Until now, manufacturers of printing presses became involved in the optimisation of consumables more by accident than design. If problems arose, the buck was frequently – and senselessly – passed from one party to another. We believe that a systematic and co-ordinated methodology on the part of all the suppliers involved in the printing process can make a substantial contribution towards cutting the cost of newspaper production and automating the production flow.

Klaus Schmidt  
Klaus.Schmidt@kba-print.de

*Rising demand for four-high towers with heatset capability*

## Fourth SC Comet for Janssen in Gennep

*Semi-commercial production on four-high single- or double-width newspaper presses with a heatset capability is becoming ever more popular, most notably in the Benelux states where print providers see them as a cost-effective means of producing supplements, flyers and other semi-commercial. At the end of the year a 75,000cph Comet with semi-commercial package will join an array of other KBA presses at Dutch printing house Janssen/Pers Rotatiedruk in Gennep.*



*Poised to seal the deal in Würzburg, from the left: Bert Geefshuysen, production director of Janssen/Pers Rotatiedruk; Jochen Schwab, KBA; Jan Verheijen, managing director of Janssen/Pers Rotatiedruk; and Ingo van Koll, KBA. Looking on: de Jong technical director Roel de Weerd (2<sup>nd</sup> r) with Heiko Klein, Peter Müller and Christian Fuhrmann of KBA*

**T**his is the eighth time in succession that we have opted for KBA newspaper press technology," says managing director Jan Verheijen. "Within the de Jong/Janssen Pers media group the new Comet will be the 17<sup>th</sup> KBA press."

### *Newspaper press with commercial folders*

According to Roel de Weerd, technical director of allied media enterprise de Jong in Baarle-Nassau, the contract went to the Comet because its combination of heatset technology and two high-performance commercial folders offered the best concept. "The way KBA customised the Comet for our production scenario, with the new P3 pin folder plus numerous inline finishing and automation features, confirmed our belief that it was the right choice. Its high level of productivity and quality standards will

*The new semi-commercial Comet for Janssen/Pers Rotatiedruk in Gennep features a Megtec hot-air dryer above the two commercial pin folders*

deliver the technology upgrade we need and substantially increase capacity."

### *110 titles per week*

Established in 1883, Janssen/Pers employs around 300 people and posts annual sales in excess of €50m (\$60.8m). Week for week, the Gennep plant prints 110 different titles with a total circulation of 18 million copies. Alongside its own titles the company also does a lot of contract work. The Comet will primarily be used to print full-colour flyers for furniture stores, DIY and garden centres, supermarkets etc. It

will be in operation 24 hours a day, seven days a week – Janssen/Pers' response to an emerging demand in the semi-commercial market for faster delivery, more flexible production and a better print quality.

The single-floor Comet press line has a 578mm (22<sup>3</sup>/<sub>4</sub>") cut-off and can handle web widths variable between 635mm (25") and 1,000mm (39<sup>1</sup>/<sub>2</sub>"). It will be fed by a Pastostar RC reelstand integrated in a Patras M reel-handling system and will comprise an H-type tower for four colours blanket-to-blanket, two P3 pin folders, one folder superstructure with one former

and another with two turner bars, plus a gluing and softening device.

### *Unparalleled flexibility*

The variable slit and the commercial superstructure support a high level of production flexibility. Provision has been made for a quarterfold facility plus length and cross perforators for inline finishing. The press will be configured with a hot-air dryer, a chill roller stand and a silicone unit for heatset production. The extensive automation package for the SC Comet also encompasses reinforced inking and dampening units, automatic colour and cut-off register controls, Basko web-tension control, web guidance prior to printing unit and folder infeed, automatic blanket washing, automatic ink pumping for black and process inks and a console with diagnostics PC. The press crew will receive special training in how to make the most of their new press line.



*Dr Bernd Heusinger  
Bernd.Heusinger@kba-print.de*



**A**t our factory in Würzburg, a Prisma engineered for the standard US newspaper format is standing by to demonstrate its capabilities to newspaper publishers who have no need to run collect production but wish to take advantage of the two-page jumps, high print quality and output afforded by a double-width press.

The Prisma brings versatility to colour newspaper printing, uniting the high output of a double-width press and the flexibility of a one-around machine. Its one-around plate cylinder addresses the widespread shift towards localisation by expanding options both for the total page count and for the number and thickness of the individual sections.

The Prisma can print the same number of pages as a two-across, one-around (2/1) press like the Continent but with only half the number of printing units and reelstands, so the press requires less manning, takes up less space and can be made ready faster.

#### *All current formats*

The printing units on the Prisma are all H-type and can be configured either as full or half-units in line or as a tower for 4/4 or 2 x 2/2. The tower has two main operating levels and, at just 6m (19' 8") high, is neat and compact.

A maximum rated output of 75,000 copies per hour cuts the time lag between news events and coverage. There is a choice of cut-offs, from 470mm to 598.5mm (18½" - 23½"). Web width depends on the cut-off, with a standard maximum of 1,680mm (66").

The Prisma incorporates our well-proven Drivetronic shaftless drives for the printing units, reelstand, infeed unit, draw rollers in the superstructure and the folder. Sophisticated console technology makes for easy handling. It can be configured as a floor-mounted, two-floor or sub-frame version.

#### *Prisma 4/1 tower press*

## Later, but better

*The launch of our new four-by-one Prisma 8pp offset press was delayed by an exceptionally heavy production workload at the beginning of the millennium. But although it appeared on the market later than models by some of our competitors, we used the time to make this four-high tower press far superior to comparable first-generation presses in terms of operating convenience and print quality.*



*Ready for demonstrations at our Würzburg factory – our new 4/1 Prisma*

#### *Quality colour printing*

The H-type printing units are engineered for ergonomic production. The double-size blanket cylinders feature the minigaps first introduced on our commercial presses some five years ago and now in operation on more than 600 printing couples. The plate cylinders have proven, maintenance-free lock-up slots. Pneumatic blanket lock-ups support easy blanket changes without the need for tools.

The compact design of the printing units shortens web paths and thus reduces fan-out. Yet despite this compactness, and the fact that the plate cylinders are only one plate around, all the units are freely accessible and easy to operate during plate changes. Automatic blanket washing units are available as an option.

#### *Product- and press-oriented operation*

Even the standard version of the Prisma offers the operator active assistance in product-oriented press preparation, with each printing couple automatically assigned to the specified page. Setting colour or dampening merely entails keying in the relevant page and colour.

With press-oriented operation, a specific printing couple or subassembly is selected via the function keyboard with the aid of colour graphic screens, and production parameters such as ink, water, web tension, web leads, folds etc are preset to shorten set-up times.

The console system can, as an option, be linked to a job-scheduling and press-presetting system. Digital data for presetting the ink keys can be transferred online from pre-press via



*Easy handling and access for plate changing, even though the plate cylinder is only one plate around*

a RIP interface. This reduces start-up waste. The press can also be embedded in a digital workflow.

Klaus Schmidt  
Klaus.Schmidt@kba-print.de

## Basler Zeitung toasts colourful future

On 25 June, at an official inauguration ceremony attended by a plethora of print professionals and distinguished guests, a new Commander press line swung into action at Swiss newspaper **Basler Zeitung** (BaZ) printing a special commemorative edition. The whole project, from breaking the ground for the light and spacious new press hall to commissioning the press, took just over two years to complete. The high-tech Commander, a satellite press configured as eight 10-cylinder towers with nine reelstands and three jaw folders, started up production in late autumn last year.

The press line prints almost four million copies per week and has an annual consumption of around 33,000 reels of paper which are automatically conveyed from a high-bay reel store 50m (164') long and 20m (65'7") high built by Metso Pa-

per of Finland. The eight ABB consoles are housed in a sound-proofed control room on the second floor. The entire installation, from the reel room to the superstructure, is monitored by



40 video cameras which furnish the press crew with a continuous update on production conditions. Two CTP systems sup-

plied by Agfa and a new Ferag mailroom complete the line-up.

Speaking at the inauguration ceremony, the director of

the Basle printing plant, Felix Bitterli, said: "Let us raise our glasses to a colourful future." A future founded on quality recognised by membership of the prestigious International Newspaper Color Quality Club 2004 - 2006, awarded for a Co-op newspaper with a weekly circulation of 1.4 million copies - printed on the new Commander.



*Cutting-edge newspaper technology in a light and spacious new press hall – the KBA Commander at the Basler Zeitung (photos: Dieckhoff)*

## Digraf: Purveyors to the Spanish Royal Family

When Prince Felipe of Spain married Letizia Ortiz on 22 May, each wedding guest received a very special gift: a bottle of Rioja wine in artistic packaging produced by **Digraf** in **Albelda de Iregua**, a town in the same region in which the wine is grown.

The packaging was printed on a 1987-vintage Rapida 104 four-colour coater press. This has since been joined by a Rapida 105 universal six-colour coater press with a hybrid capability, which in addition to expanding production capacity will enable the company to create even more sophisticated products featuring totally new coating effects, yet at a moderate price.

Digraf also prints cigarette packets and luxury packaging for perfume.



*The owners of Digraf, Mercedes Jubera (r) and Javier Elias (2<sup>nd</sup> r), with KBA sales director Claus Hartung and Jesus Herrero of KBA-Ilasa after inking the contract for a Rapida 105 universal similar to the one exhibited at Drupa*



## Holzer enhances print with Aniva and FM

In mid-June, German printing house **Holzer Druck und Medien** in **Weiler** (Allgäu) celebrated another big advance with a symposium and the inauguration of a new Rapida 105 universal five-colour with coater. The symposium, the second to be held at the Kornhaus in Weiler, offered some 80 customers an update on print-related technologies.

Holzer, whose origins date back more than 150 years, is a leading light in the regional print industry. Its production plant runs 20 B1 plus five B2 KBA printing units supported by Heidelberg pre-press. The new B1 press is the sixth KBA press the 130-employee company has ordered since 1990 and the first to feature a coater.

Holzer started testing aniva® inks in 2002. The aniva colour system, developed by Epple, has an expanded colour gamut that enables the press to deliver photographic-quality prints. To make the most of this stunning visual impact Holzer applies Heidelberg Satin Screening FM technology. The superiority of aniva inks is shown to best effect on textiles, technical illustrations and reproductions of luxury goods such as watches or cosmetics. According to plant manager Peter Rasthofer, this inspired



*At the inauguration of the new Rapida 105 five-colour Michael Stürmer, head of KBA Süd, presented Dr Elmar Holzer and his wife Gertrud with an original sheet of one-dollar notes printed at the Bureau of Engraving and Printing in the US (photo: Müller)*

combination of aniva inks and FM screening has been in place for several weeks.

Among Holzer's clientele there is an emerging demand for more extensive and imaginative finishing capabilities. As a result, aqueous coating was a major specification for the new

press. "We were looking for more than just a straightforward four-colour production tool," says company owner Dr Elmar Holzer. "Our customer base largely comprises international corporations. The new technology and enhanced quality we can now offer will en-

able us to attract new accounts." Alongside catalogues, brochures and diverse publications for big industrial and commercial groups Holzer also prints for a string of publishing houses and has established a reputation for the quality of its facsimile prints.

## KBA North America named Supplier of the Year



**K**BA North America has been named Supplier of the Year by **Rex Corporation**, a packaging printer in **Jacksonville**, Florida. KBA was presented with a plaque for its honour, which was accepted by Ralf Sammeck, president and CEO of KBA North America, on the company's behalf.

"This is an annual award that we present to the equipment supplier who shows exclamatory service," says Chipper Hall, Rex's president. "We have been partnering with KBA for many years and working closely together and they have helped us to grow and improve our company."

*Chipper Hall, president of Rex Corporation, holds a miniature press model of his Rapida 105 press in front of the real thing*

## Fratelli Spada takes 64pp Compacta 818



Signing the contract in Rome (l-r): Luigi Miculan (technical manager, Spada), Dario Braschi (sales manager, KBA-Italia), Marco Spada (president of Spada), Dieter Mattern (sales manager, KBA), Dr Gianmaria Lombardi (managing director, Spada) and Hubert Kistner (product manager, KBA)

**F**ratelli Spada, a major European printing and publishing house, is expanding capacity at its **Rome** headquarters with a 64-page KBA Compacta 818 heatset commercial press.

Established in 1957, Fratelli Spada has a payroll of 300



Rome-based Fratelli Spada is one of Europe's major printing and publishing houses

and annual sales of around €60m (\$73m). The company's broad service spectrum embraces print, finishing and multimedia production. Roughly 70% of sales are generated in Italy, 30% abroad, with the focus on central and eastern Europe.

The company's current fleet comprises ten 16- to 64-page web presses and an equal number of sheetfed offset presses. With the new Compacta 818 Fratelli Spada is targeting annual growth rates of 10% to 20% over the next three years.

The Compacta 818 for Fratelli Spada has a cylinder circumference of 1,197mm (47"), a web width of 1,905mm (75") and a maximum web speed 13.3mps (2,618fpm). The maximum rated output is 40,000 64pp copies per hour.

To minimise makeready and streamline logistics the press features automatic plate changers and a Patras A automatic reel-handling system for the Pastomat RC beltless reelstands. But the *piece de resistance* is a variable-format V5 folder that supports two or three cut-offs around the cylinder circumference and thus the production of short- or long-grain copies, enabling the Compacta 818 to be used for a much wider range of products. It is slated to come on stream at the Rome facility in November.

## KBA to distribute HumanEyes software

**H**umanEyes Technologies signed a joint-venture and distribution agreement with KBA during a HumanEyes press conference on the KBA stand at Drupa. With immediate effect, HumanEyes' 3D Karat software, which is suitable both for the 74 Karat and Rapida machines, will be offered through our existing distribution channels. Numerous HumanEyes 3D Karat software packages have already been sold with 74 Karat presses. Live demonstrations of the software were run on the 74 Karat throughout the show.

Commenting on the agreement, Gideon Ben-Zvi, presi-



From the left: Gideon Ben-Zvi, Yoav Chelouche (both of HumanEyes), Andreas Mössner and Jens Junker (both KBA) signing the joint distribution agreement

dent and CEO of HumanEyes Technologies, said, "We are delighted to see HumanEyes software bringing together the world of digital 3-D photography and the advanced plastic printing systems developed by KBA in order to offer a high-quality lenticular solution suitable for mainstream printing."

The Karat workflow serves as the ideal platform for this unique software by reducing makeready time and supporting direct printing on plastic with oxidative inks. It delivers a superb three-dimensional image on lenticular film with an absolute minimum of waste.



## Color K addresses new markets with 74 Karat

A new Karat to be installed in **Miami**, Florida, will bring additional business into **Color K Graphics**. The press was sold on the first day of Drupa when the owner, Daniel Korzeniewski, saw the high-quality printing along with extremely short makeready times. "We're excited about the KBA partnership that will allow us to grow our organisation into new markets as well as being able to add to our services for our existing customer base. KBA's Drupa booth and the presses shown were extremely impressive and its wide range of cutting-edge technology will ensure that KBA is the best partner for our future development."

Color K is a small digital and offset company serving the southern Florida marketplace. The 74 Karat features an inline coater for high gloss and faster turnaround. This will address customer demands for same-day service. The press also has an optional board package for running thicker substrates. This will help the company expand



*The delegation from Color K – Daniel, Frederico and Juan Carlos Korzeniewski – flanked by sales rep Ed Fitzpatrick and CEO Ralf Sammeck of KBA North America's Sheetfed Division, in the short-run factory on the KBA stand*

into the short-run packaging market.

Being able to serve clients' total needs in Miami is extremely important as it is a fast-

paced marketplace and print buyers have limited time. Many organisations use the trendy hot spot for testing new packaging concepts, and the Karat is the

ideal tool for capturing this emerging market. No other press can deliver such quality in this format with such fast turnaround times.

## Jennings DAR, Taylor Bloxham place orders for 74 Karat

A major market for our 74 Karat is the UK, where it is used for various applications.

Fast prototyping for the international packaging market is one of the tasks assigned to a new coater version at **Jennings DAR** (Design, Artwork and Reprographics), **Barnsley**, an 80-employee company with a

mirror organisation in Sri Lanka and partner pre-press companies in the USA and China.

Established in Leeds some 15 years ago, the firm provides a supply chain management and reprographic bureau service across Europe, originating designs for the packaging and point of purchase sectors as well as a substantial tranche of publishing work.

So what clinched the order for KBA? "The Karat's excellent substrate flexibility and fast makeready," says John Jennings. "It enhances the service we provide to our discerning international clientele."

For **Leicester-based Taylor Bloxham**, one of the UK's largest sheetfed litho printers still under family management, the 74 Karat represents a carefully planned move into digital printing.

The press will work alongside a 12-colour Speedmaster. Says operational development

director Wesley Sykes: "We believe the 74 Karat will meet our exacting requirements. It is a brilliant concept and will give us immense flexibility, delivering high-quality print."

Founded in 1938, Taylor Bloxham is today the major company within The Print People Group which, together with sister companies C&R Printing Services and facilities management company FastAnt, employs over 200 staff and has a turnover in excess of £20m (\$36.5m). The group's product range includes magazines, catalogues, business reports and accounts, greeting cards and high-quality commercials.



## Aldridge installs Rapida 105/10 to add clout in the marketplace

An investment set to extend the company's competitive edge is how **Aldridge Print Group** describes its purchase of a new Rapida 105/10.

With a modern 30,000ft<sup>2</sup> (3,000m<sup>2</sup>) factory at **Mitcham**, Aldridge specialises in high-quality corporate work, setting high standards for both its print and its in-house operational systems.

Managing director Robert Aldridge represents the fourth generation of the founding family. Today the group employs over 60 staff and has a turnover in excess of £6 million (\$11m).

The Rapida 105/10 will replace a six-colour and a two-colour Heidelberg. "I have been happy with the Heidelberg products," says Mr Aldridge. "But we are now attracted by KBA's newer technology, superb print quality and the Rapida's ability to print five back five on material up to 700 microns. We were also attracted



From the left: Aldridge Print Group MD Barry Smith, CEO Robert Aldridge and technical director Roger Bush at the press in Radebeul

by its sound environmental credentials. Today, you need to be of a size to compete well and this new machine as our lead press will give us increased clout in the marketplace."

The company strains for every technological advantage it can gain from its Screen CTP systems, award-winning FM screening, ISO 14001 environmental accreditation, impres-

sive e-commerce service and its trail-blazing use of Metal FX printing. "We are quite good at systems technology," Robert Aldridge adds modestly.

## Four print locations + one file = one result

**Corporate** philosophy at the **Schmelzle-Gruppe**, a big German web offset printing group, is informed by rigorous quality standards at its four affiliated companies – Gmähle Rollenoffset in Waiblingen, Limburger Offsetdruck in Limburg, Frotscher Druck Leipzig in Gerichshain and Wagnersche Universitätsdruckerei in Innsbruck (Austria).

That is why, earlier this year, it applied to the relevant regional branches of the BVDm (Bundesverband Druck und Medien = Printing and Media Industries Federation) for accreditation of its offset lithographic processes in accordance with part 2 of ISO 12647, a graphic technology standard relating to process control for the manufacture of half-tone



Michael Hüffner (l), chairman of the Baden-Württemberg branch of the BVDm, congratulates Kurt Schmelzle on being the first web offset printer to receive the coveted ISO 12647-2 certificate for offset lithographic processes

colour separations, proof and production prints.

The web stock selected by the group for certification at all four production locations was one whose properties most

closely resemble those of stock class II (matt coated for sheetfed offset). The test files were processed and prepared at the main plant in Limburg, which is where standardised

data processing for everyday production takes place. The finished files were subsequently sent to the individual locations for output on CTP devices.

The spectrophotometric values of the digital proofs and the quality of the offset prints delivered was astounding. Although the production prints were run on web offset presses, the print characteristics corresponded to those for sheetfed offset. Compelling evidence of the outstanding print quality at the four locations, which all operate Compacts presses.

So on 19 July group proprietor Kurt Schmelzle became the first web offset printer in Germany to be awarded an ISO 12647-2 certificate for the offset lithographic processes at all his production facilities.



## Colora heralds new era at Metroland

**F**ast, efficient and able to print 75,000 copies an hour, a new Colora is now operational at Canadian enterprise **Metroland Printing, Publishing & Distributing** in Toronto, Canada. Comprising four towers, six two-arm reelstands, two folder superstructures with four formers and two jaw folders, the press was installed at Metroland's newly-designed facility in North York.

Pressroom manager Bob Cole, who has been working with presses for more than 30 years, says the new KBA Colora is the best he has ever seen. "The quality is definitely visible," he adds. "There have been no shortcomings."

Plant manager Ian Duck says KBA was chosen for its design of a variable web width press that would improve on

the division's five previous variable web width presses. "Metroland has the ability to print on many variable web sizes and stock basis weights, combinations of tabloids and broadsheets, a large assortment of colour configurations and a variety of commercial products, and now includes a 96-page stitching capacity. This ability allows us to offer a broader range of products for our customers."

A tabloid must have a width of 289mm (11<sup>3</sup>/<sub>8</sub>" ), but may have a variable length from 279.5mm to 406.5mm (11" - 16"). The Colora can print in that entire range, in 25mm (1") increments. A broadsheet publication has a fixed length of 578mm (22<sup>3</sup>/<sub>4</sub>" ) and a variable width of 279.5mm to 406.5mm. These could also be printed by the Colora, as could advertising

flyers and other commercial work of a higher basis weight.

The Colora can print 128 full-colour tabloid pages. The maximum page count of 192 pages with 64 full-colour pages can also be achieved in one pass. Right from the start the new press could print 1.5 million copies a week.

A wholly owned subsidiary of Torstar Corporation, a media company whose businesses include *The Toronto Star*, Metroland publishes 65 newspapers with a total of 110 editions, centred around Toronto and southern Ontario. Combined distribution of Metroland's community titles is around 4.5 million copies per week.

*Bob Cole, pressroom manager with more than 30 years of industry experience, is delighted with the new Colora*



## First Double Circumference Commercial Web Press for Chile



*From the left: KBA sales director Christoph Müller and executive vice president Walter Schumacher, COPESA operations manager Mario Troncoso Lagos, KBA marketing manager Erik Rehmann, PROSA operations manager Pedro Moral Lopez, IKB Deutsche Industriebank director Karl-Heinz Passlick and KBA sales manager Kai Trapp lining up for a photo after sealing the deal at Drupa*

**P**ROSA, a subsidiary of Chilean media enterprise COPESA, is expanding the printing capacity at its San-

tiago plant with a 48pp Compacta 618 from Koenig & Bauer. It will be the first double circumference commercial web

offset press in the country and illustrates COPESA'S confidence in growth in this market sector. At the same time it

places the Chilean printing sector in a key position in South America.

The deal – the biggest for a decade and a milestone in the history of Chile's printing industry – encompasses new pre-press equipment and infrastructure. The technology and capacity boost delivered by the new KBA press will dramatically reduce the cost of printing magazines and brochures.

At present PROSA, which has 145 employees and addresses both regional and international markets, prints books, magazines, catalogues and supplements on four 16pp presses and a sheetfed press. Taking on board the most advanced pre-press and press technology in the market will enable PROSA to offer its customers enhanced quality, a more diverse spread of products and faster turnaround.

## KBA Trennfeld celebrates 40<sup>th</sup> jubilee

On 10 July our assembly plant in Trennfeld, a 20-minute drive from our main plant in Würzburg, celebrated its 40<sup>th</sup> jubilee. Speaking at the commemorative ceremony, KBA president Albrecht Bolza-Schünemann recalled some of his personal memories of the company's evolution from its origins on a greenfield site in 1964 to its present dimensions. "Over the past 40 years the factory has seen continuous growth. Today it employs 400 people and occupies a key position within the 7,000-strong KBA group as an 'extended workbench' for our web presses. KBA customers all over the world value the high quality of the presses assembled here and, above all, the reliability and diligence of our Trennfeld-based fitters."

Five years ago, the Trennfeld plant was converted into a specialist assembly line and substantially extended in order to support strong growth in sales of KBA web presses. Since then it has assembled virtually all the printing units for newspaper and commercial web presses, all the superstructures for newspaper presses and



*The high spot of the open day at our Trennfeld assembly plant was a print demonstration on a Colora newspaper press destined for Dover, Delaware. The start-up button was pressed by Matthias and Marc Bolza-Schünemann, who represent the 7<sup>th</sup> generation in KBA's founding family*



systems for reel logistics. Earlier this year it installed an online facility for the remote maintenance of KBA web off-set presses worldwide.

More than 4,000 visitors thronged the factory on the open day commemorating its 40th jubilee. The high spot of the event was a print demo on a

Colora newspaper press destined for an American customer in Dover, Delaware, with Marc and Matthias Bolza-Schünemann pressing the button.

## Kansas City Star issues invites to Appreciation Party

At the beginning of December 2002 the *Kansas City Star*, a title owned by US media group Knight Ridder, placed an order for a multi-unit Commander press line with a total of 36 four-high towers. The presses will soon be ready for shipping. At the end of June, as a big thank-you for the support of all the KBA staff engaged in this project, the *Kansas City Star* threw an "Appreciation Party" in Würzburg.

Celebrating the casting of the final side frame in the foundry, Randy Waters, vice president production, flew over spe-

cially from the States with production director Dave Brolhorst and his wife Sue to organise the event. To the accompaniment of the KBA works band



*Randy Waters (l) and Dave Brolhorst inspecting the side-frames*

an entertaining afternoon was spent engrossed in shoptalk while consuming quantities of Bavarian beer, Franconian sausages and steaks.



*Randy Waters tapping the obligatory beer barrel in the hospitality tent*

In the present day and age an invitation such as this, from a major customer to the staff of an equipment supplier, is something of a rarity.



*Claus Bolza-Schünemann thanking the Kansas City Star*



## Technology upgrade for European directory giant

**S**panish directory giant **Einsa Ediciones Informáticas** is boosting its heatset capabilities with a 64pp Compacta 818. The move underpins the **Madrid**-based company's pole position on the Iberian Peninsula and enables it to expand in the European market.

The choice of press was influenced by the company's satisfaction with six existing 48pp Compacta 618 presses, which are configured as three double-deckers.

Einsa started specialising in print production on lightweight stock soon after it was established in 1971, and has pursued a policy of ongoing investment to corner this lucrative niche market. Initially focusing on hotel guides and various other directories, it was quick to realise that telephone directories



*Einsa is well pleased with the performance of its six Compacta 618s. Now it is adding a Compacta 818*

offered the greatest potential for growth. Einsa currently employs around 500 people and runs 11 web offset presses plus two sheetfed presses for printing covers. It consumes 100,000 tonnes of paper per year.

The new 64pp press will be configured with two Pastomat RC reelstands, four printing units, a dryer for twin-web operation, an enlarged chill-roller stand, a superstructure and a P5 folder. This unusual configuration is customised specifically

for Einsa's two main products – classic 4/4 commercials with a maximum page count of 64 A4 pages and 2/2 directories with up to 128 pages per section – and ensures that press capacity can be exploited to the full, delivering cost and efficiency gains.



*Madrid-based Einsa started specialising in print production on lightweight stock soon after being established in 1971*

## TSB orders XXL gravure press



*Sorting out the final details of the press contract in Frankenthal: (seated, l-r) TSB's deputy head of gravure Frank Ackermann and gravure plant manager Volker Schünhoff with KBA's deputy head of gravure Thomas Potzkai; (standing) KBA sales manager Gunter Rettinger, TSB administrative board member Ekkehard Stier and head of production technology Jean Haeffs, KBA sales director Christoph Müller, TSB managing director Pasquale Iuliano, KBA deputy president Claus Bolza-Schünemann and KBA project managers Bernd Bickel and Johannes Boppel*

**G**erman printing house **Tiefdruck Schwann-Bagel** (TSB) has ordered a new TR10B rotogravure press for its facility in **Mönchen-Glad-**

**bach**. This latest contract reaffirms the longstanding and successful business relationship between our two companies and underlines our technologi-

cal dominance in the market for large-scale rotogravure presses.

The new floor-mounted press will be engineered for a web width of 3.68 metres

(145"), enabling it to output up to 14 ribbons. Features include dedicated drives, which are fast becoming a standard in rotogravure. With just a couple of print runs the TR10B can produce high-circulation, high-pagination consumer magazines and catalogues cost-efficiently and fast. Its automatic presetting system minimises makereadies and waste levels during job changes.

One of the largest non-publishing printing houses in Europe, TSB is a member of the Bagel group which has been family owned since 1801. Its business operations focus on gravure and offset printing plus related customer services. It employs around 1,500 people and runs 13 rotogravure and five web offset presses that consume over 300,000 tonnes (330,000 US tons) of paper per year.

## Gerber achieves ISO 12647-2 accreditation

**K**BA sheetfed offset customer **Gerber GmbH Druck + Medien in Kirchheim** near Munich has achieved recognition for the quality and competence of its offset lithographic processes in the form of ISO 12647-2 certification. The audit was conducted by the Bavarian branch of the BVDM (Bundesverband Druck und Medien = Printing and Media Industries Federation). In 1997 Gerber was among the first print operations in Bavaria to be awarded ISO 9000 (quality) and ISO 14000 (environmental) accreditation along with the EU's environmental certificate.

Says managing director Helmut Gerber: "We are the first production plant in Bavaria and one of the first in Germany to achieve independent and impartial certification for the quality of our print and media products. This gives our

reputation as quality printers an enormous boost. Compliance also delivers higher productivity and reliability in day-to-day production, as well as a faster turnaround, since colours are defined unambiguously and reproducibly."

Established in Munich in 1927, Gerber moved to a new printing plant in Kirchheim-Heimstetten in 1990. In 1998 the company initiated the transition to KBA presses, installing a Rapida 72 five-colour and a Rapida 105 six-colour with perfecting after the second printing unit. These were followed in May this year by two more of our presses, a Rapida 74 and Rapida 105, both configured as six colours with automatically convertible perfecting after the first unit. All the printing units feature colour control with data presetting. In addition the Rapida 74 is configured with a numbering unit.



Managing directors Helmut (r) and Stephan Gerber proudly display their ISO 12647-2 certificate

Gerber's customer base spans the cosmetics and optics industries, fashion and advertising,

where high quality standards are *de rigueur*. It employs a staff of 42.

## Compacta 215 for Guangzhou Daily

**T**he **Guangzhou Daily Group** has inaugurated a second 16pp Compacta 215 commercial web press in **Guangzhou**, a flourishing industrial metropolis with seven million inhabitants some 180km (112 miles) north-west of Hong Kong.

The company's staff of around 5,800 outputs 137,000 tonnes (150,700 US tons) of printed matter per year. Its flagship title, *The Guangzhou Daily*, has a circulation of approximately 1.65 million copies per day. The volume of advertisements is the largest in the whole of China, with double-digit increases every year over the past decade.

KBA is the market leader for large-format sheetfed press-

es in China and is also a major player in the newspaper and semi-commercial markets, as is evidenced by the large numbers of Comet and Colora presses currently in operation there. This most recent investment in our commercial web offset press technology by another Chinese printing house underscores the solid reputation that KBA enjoys. The Compacta 215, which features dedicated drives, minigaps and an automatically adjustable gripper folder, is one of the most advanced presses in the global marketplace. It has a maximum rated speed of 55,000cyl.rph, a cylinder circumference of 620mm (24½") and a maximum web width of 1,000mm (39½"). Thanks to the high

level of automation and short makereadies, this is a highly ef-

ficient press for short and medium production runs alike.



After signing up for a Compacta 215 for Guangzhou Daily (l-r): Alex Gao (deputy general manager, Guangzhou Daily), Christoph Müller (KBA sales director), Liang Hanhui (president, Qingyuan Jianbei of Guangzhou Daily), Stefan Segger (general manager, KBA Asia-Pacific, Singapore), Li Xiangnan (financial director, Guangzhou Daily) and Zhao Lin (sales manager, KBA China)



## KBA Commander sails into action



Satisfied faces after checking the print quality at the console: Lee Yong-Sung, CEO of Dong-A Printing; Kim Hakjoon, president and publisher of The Dong-A Ilbo Daily; Jochen Schwab, KBA sales director; and Jeremy B.K. Kang, president of KBA's Korean agency KBA-VISIONTECH Trading

At the beginning of July a new Commander press line sailed into action at the Seoul production plant of The Dong-A Ilbo Daily (Oriental Daily News), one of the ten biggest dailies worldwide. An extension to a 1997-vintage KBA Express machine, to expand its colour capabilities, came on edition at the same time.

The new installation comprises three four-high towers

for 4:4 production, three five-couple towers for 4:1, six reelstands, six turner bars with bay-windows and balloon formers, a KF 5/KF 3 double folder, automation modules for reel logistics, ink pumping, colour-register control, blanket washing, guide roller cleaning and dust extraction, three EAE consoles and a PRINT production planning and presetting system.

The press is engineered for a maximum rated output of 85,000 48pp copies per hour in straight-run production, with 36 full-colour and 12 mono pages.

The Dong-A Ilbo media house was established in 1920 and is still controlled by the founding family. Its flagship title, The Dong-A Ilbo Daily, which has a circulation of more than two million copies a day, is one of the biggest in South Korea, with subscriptions delivered door-to-door constituting approximately 98% of sales. Dong-A Ilbo maintains some 1,500 remote editorial offices throughout the country plus a further 20 abroad. In addition to the morning daily the company prints monthly magazines, books and special-interest titles. The Dong-A Ilbo Daily is printed simultaneously at multiple locations in and around Seoul, the capital city with ten million inhabitants, and in other cities nationwide.

Company president Kim Hakjoon says, "Dong-A Ilbo Daily's company policy is



Around 100 guests attended the inauguration of the KBA Commander, among them the management team and staff of Dong-A Ilbo and representatives from other companies engaged in the project

based on top quality and performance in both our publishing and printing divisions. This is why we chose KBA press technology again."

## New 46 Karat<sup>Plus</sup> delivers new level of quality

At Drupa we unveiled a new SRA3 (18") digital offset press, the 46 Karat<sup>Plus</sup>, incorporating Presstek's ProFire Excel imaging system. This enables the press to image FM (frequency-modulated) screens and thus deliver a much better print quality.

ProFire Excel uses a 16µm (630µin) laser spot at 2540 dpi, supports both frequency- and conventional amplitude-modulated (AM) screening up to 120 l/cm (300lpi) and is optimised to work with Presstek's ProFire Digital Media. This combina-

tion of press, laser and plate technology has raised the benchmark in digital offset quality.

In addition to delivering an enhanced imaging quality the new 46 Karat<sup>Plus</sup> also features

- upgraded software for the inking system that automatically controls ink settings over the complete run, ensuring consistent colour densities and minimised paper waste;
- a pre-stacking device that supports uninterrupted operation during long print runs or advance preparation of stock

for the next print job, making for greater efficiency and a higher output;

- a new, high-performance WEKO AP110 powder spray system, which consumes less powder per application by metering it more uniformly and precisely across the entire sheet width.

Alongside the 46 Karat<sup>Plus</sup> we shall continue to offer our existing 46 Karat model, thus providing customers with a variety of pricing options and the ability to choose a press that best fits their needs.



Our new 46 Karat<sup>Plus</sup>, featuring Presstek's ProFire Excel imaging technology, was a focus of interest among visitors to the short-run factory on our stand at Drupa, where we sold a number of presses

## KBA user meetings in Spain and Denmark



*The tour of the Heraldo de Aragon in Zaragoza to see a Comet in action was the high spot of the user meeting in Spain*

A user meeting for our Spanish customers took place in March at the *Heraldo de Aragon* in Zaragoza (Sara-gossa). Following the premiere in October last year at Canarias7 on Gran Canaria it was the second meeting of this type to be held on Spanish soil. The meeting was co-sponsored by our alliance partners EAE and Megtec (Amal) and organised by our agency KBA-Lauvic.

The central theme of the papers and discussions was the current state of the art and recent advances in newspaper printing technology. And, of course, the event would not have been complete without a tour of the Comet installation in Zaragoza. The day concluded with a banquet dinner which gave the participants a fine opportunity to talk shop.

Just a few days later Scandinavian newspaper pro-

fessionals gathered in Odense, Denmark, for a user meeting organised by KBA-Nordic. The programme included a trip to two local newspaper printing plants, Fyens Trykkeri in Odense and Politiken in Erritsø-Fredericia, for production runs on Colora and Commander press lines. On the second day KBA-Nordic staff gave an update on the technological advances KBA has made and the

full-scale after-sales service provided by KBA-Nordic. The technological advances were subsequently demonstrated on a Colora press line.

The programme met with the unanimous approval of all the participants, many of whom described the user meeting as an enrichment for their day-to-day work in a newspaper production environment.



*KBA user meetings like the one in Odense, Denmark, offer a valuable platform for swapping notes on shopfloor practices*

## Red carpet treatment for Compacta 318 at Sud Graphie Rotatives

More than 400 industry players and luminaries accepted an invitation to **St. Sulpice** in southern France at the beginning of June to attend the official dedication of a new 24-page Compacta 318 commercial press at **Sud Graphie Rotatives**. The company pulled out all the stops to make it an unforgettable event. The guests were welcomed by an actor playing the part of Johannes Gutenberg, who accompanied proceedings, together with his colourful colleagues, for the rest of the day.

But the star of the show was the high-tech Compacta 318.

Configured with a flying imprinter, four printing units, a superstructure and F3 gripper folder for enhanced production flexibility, the press demon-

strated its high output and quality potential with a commemorative production run.

Sud Graphie is part of the Lasky group and thus affiliated

with one of our French sheetfed customers, MAME, which has three Rapida 162 large-format presses at its production plant in Tours.



*Over 400 guests attended the dedication of a new Compacta 318 at Sud Graphie Rotatives*



*"Johannes Gutenberg" and his colleagues put in a distinguished appearance in their historical attire*



# B&K books Compacta 217



B&K founders Annegret and Jochen Kalbhenn (3<sup>rd</sup> and 4<sup>th</sup> left) at the new Compacta 217 flanked by (l-r) Werner Stimmler of B&K, KBA president Albrecht Bolza-Schünemann and sales manager Willi Burckhart, B&K managing director Jörn Kalbhenn and KBA agent Werner Grunert

**G**erman print enterprise **B&K Offsetdruck** in **Ottersweier** has ordered a Compacta 217 high-performance 16-page commercial press as part of an ambitious move to grow market share.

Since it was established 35 years ago B&K has steadily expanded by specialising in product customisation and a one-stop service from design and development to print conversion. The 250 staff in this family enterprise display a rare level of skill and experience in handling cutting-edge equipment.

The company operates six B1 (40") sheetfed offset presses with which it targets the high end of the market. Fluorescent colour, inline coating and die-cutting are just a few of the features it can offer. Colour measurement and control systems directly at the presses guarantee a consistently high standard of quality.

Four years ago B&K moved its entire web press operation to a new production fa-

cility. At present the company runs three 16-page web presses, each with five double printing units plus sundry folding and inline-finishing devices. Here, too, on-press colorimetry supports high quality standards.

The scale of the company's finishing department is unrivalled in southern Germany, furnishing the capacity and flexibility it needs to support a fast turnaround, high-volume output and product diversity. There are four cutters, 14 folding machines, four label dispensers and some postcard inserters. In the works are two mail folding and gluing machines, gumming and perforating units, two saddle-stitchers with six and eight feeder stations, a cover feeder, postcard gluing station, one- and two-up processing and quire-folding unit, and folding up to a maximum format of 320 x 480mm (12½" x 19").

The new Compacta 217 will be configured without a folder but with inline finishing devices and a heavy-duty



Since it was established 35 years ago B&K has expanded strongly by specialising in product customisation. Its 250 staff display a rare level of skill and experience in handling cutting-edge equipment

sheeter capable of handling 70,000 sheets per hour. The five printing units will all be equipped with automatic plate changers. Sophisticated imprinter facilities at the first two printing units support flying imprint changes even in short-run production. The geometry of the dampening and inking units and the Compacta's ability to handle a wide range of stock weights up to 220gsm (80lb cover) were key factors in its favour. The press is slated to come on stream in March 2005.

## Report

is a customer magazine issued by the Koenig & Bauer Group (KBA):

### Koenig & Bauer AG Würzburg

Friedrich-Koenig-Strasse 4  
D-97080 Würzburg  
Telephone: (+49) 931 909-4336  
Telefax: (+49) 931 909-4101  
Internet: [www.kba-print.com](http://www.kba-print.com)  
E-mail: [kba-wuerzburg@kba-print.de](mailto:kba-wuerzburg@kba-print.de)

### Koenig & Bauer AG Frankenthal

Johann-Klein-Strasse 1  
D-67227 Frankenthal  
Telephone: (+49) 6233 873-3371  
Telefax: (+49) 6233 873-3222  
Internet: [www.kba-print.com](http://www.kba-print.com)  
E-mail: [kba-frankenthal@kba-print.de](mailto:kba-frankenthal@kba-print.de)

### Koenig & Bauer AG Radebeul near Dresden

Friedrich-List-Strasse 47-49  
D-01445 Radebeul  
Telephone: (+49) 351 833-2580  
Telefax: (+49) 351 833-1001  
Internet: [www.kba-print.com](http://www.kba-print.com)  
E-mail: [office@kba-planeta.de](mailto:office@kba-planeta.de)

### Publisher:

Koenig & Bauer Group

### Editor-in-chief:

Klaus Schmidt,  
KBA marketing director, Würzburg

**Layout:** Pia Vogel, Mannhof Media

**Translation:** Christina Degens-Kupp

**Printed in the  
Federal Republic of Germany**