KBA C48 SG / C56 SG

Peak productivity in short-grain production

KBA
Koenig & Bauer AG

Short-grain presses

For that competitive edge in price-sensitive markets

Our double-circumference C48 SG and C56 SG are powerful, highly automated short-grain commercial presses for a maximum of 48 and 56 A4 pages respectively and a wide range of applications. Their exceptional productivity makes them the ideal tool for printing high-circulation and/or high-pagination promotional literature, supplements and commercials in price-sensitive markets where fast turnaround is a must. One of their many strengths is their low per-thousand copy cost, giving you that crucial competitive edge.

In any given time, short-grain presses like the C48 SG and C56 SG can pump out one-third more copies than long-grain presses running at the same production speed. They are mainly used for stitched and unstitched products where output and price are key criteria.

In terms of automation, workflow integration, ergonomic operation and maintenance input the C48 SG and C56 SG are at the cutting edge of technology. Automatic plate changing and folder adjustment, along with other unique features such as KBA RollerTronic automated roller bearings, deliver an exceptionally high net output. What is more, short grain technology supports the format flexibility that is essential in the advertising business today.

Winning features in brief:

- 60,000iph for greater productivity and cost efficiency
- Minigaps to minimise the non-image margin
- Automatic plate changing in just two minutes, irrespective of the number of plates
- Optimised film inking units for a precise, uniform application of ink
- High-performance KBA Pastomat CL reelstand
- Integrated reel logistics via KBA Patras M (manual) or KBA Patras A (automated)
- Automatically convertible P5 folder
- Ergonomic operation
- Automatic press preset via KBA LogoTronic
- Optional JDF process integration via KBA LogoTronic
- Job management via KBA LogoTronic

Paper logistics

Just in time

Our Patras A integrated reel transport and logistics system enables you to automate your entire paper flow from goods reception and reel storage to the on-demand delivery and insertion of prepared reels at the reelstands complete with stub removal and disposal. Electronic controls for the individual sequences are a core component of our press consoles.

KBA Patras is robust yet flexible, requires a minimum of maintenance and is outstanding value for money. Optimising your paper logistics with Patras delivers substantial savings in both costs and waste.

The choice of module-based configurations ranges from manually assisted to fully automated, supporting total customisation to suit both your production technology and the space available.

Our high-performance KBA Pastomat CL reelstand with central drive and split arms can be easily embedded in an automated reel-logistics system.

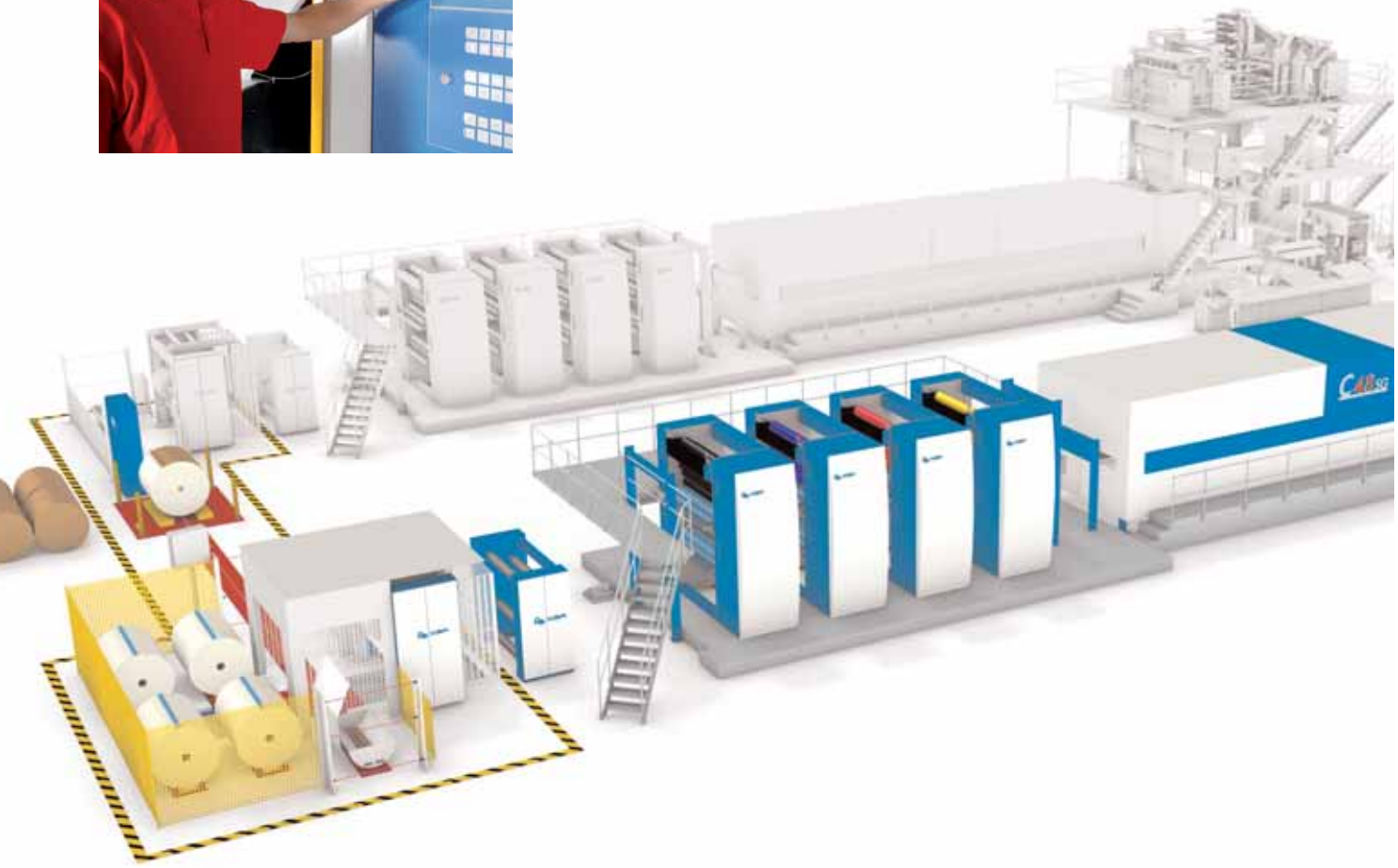
The Pastomat CL's beltless technology makes for easy splice preparation. As the old web expires the new one is spliced on automatically at maximum production speed.

The reel arms on the Pastomat CL are infinitely adjustable by remote control. Their ability to accept reels of different widths ensures maximum flexibility in handling different types of product.

See separate brochures for more information on our Patras reel logistics and new-generation Pastomat CL reelstand.

Right: High-performance KBA Pastomat CL reelstand for web speeds of up to 15.2mps (2,992fpi)

Below: Patras A model with four park positions and connection to an existing web offset press

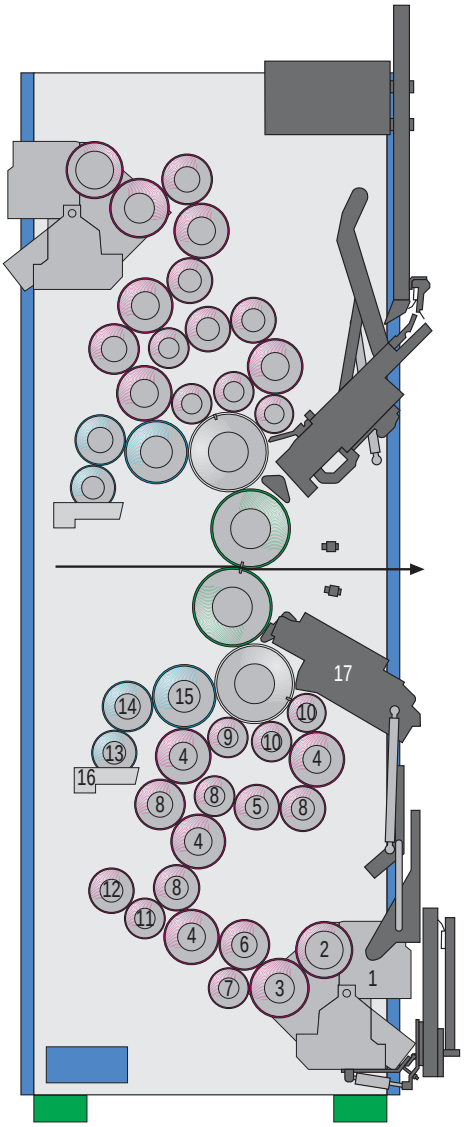



KBA

Perfection in print

Productivity meets quality

The off-bearer printing units for our double-circumference C48 SG and C56 SG combine a robust construction with innovative technology. They are specifically engineered for the harsh realities of high-volume triple-shift production. The plate and blanket cylinders guarantee a smooth machine run even at a web speed of 15mps (2,953fpm), and a high commercial print quality.



C48 SG and C56 SG printing unit
1 Ink duct
2 Duct roller
3 Film roller
4 Ink distributor
5 Ink transfer roller (rilsan-coated)
6 Ink transfer roller
7 Rider roller
8 Ink transfer roller
9 Ink transfer roller, oscillating
10 Ink forme roller
11 Ink transfer roller
12 Doctor blade roller (lower couples only)
13 Dampening-duct roller
14 Chrome roller, oscillating
15 Dampening forme roller, oscillating
16 Water fountain
17 Automatic plate changer

The plate and blanket cylinders are made of nickel-plated steel to prevent corrosion. The blankets are clamped on via two spindles. The minimised gap on the plate cylinder and minigap on the blanket cylinder reduce paper consumption and eliminate undesirable vibration.

The remote adjustment of lateral, circumferential and diagonal register from the console shortens makeready times and reduces waste. The unit-to-unit register is controlled via separate AC drives for the upper and lower couples. Temperature-controlled blanket cylinders and smooth-running carbon-fibre inking rollers ensure process stability in continuous operation. More rollers with a larger diameter compared to other makes of press guarantee uniformity and rich solids throughout the production run. The bigger roller diameter also means less abrasion. This also applies to the dampening forme rollers in the C48 SG and C56 SG.

Stable, box-shaped side-frames made of solid cast iron prevent vibration. Both presses are engineered for durability, 24/7 reliability and competitive life-cycle costs.

Automatic plate changing

The C48 SG is engineered for maximum productivity. Which is why standard features include automatic plate changing to cut makeready and down times.

The dual motor drive system allows the plates in the upper and lower printing units to be changed simultaneously. The reliability and low maintenance demands of our automatic plate-changing systems have been proven on countless newspaper and commercial presses.

Automatic plate-changing in just two minutes
1 Ejection of used plates, new plate in holding position
2 Used plate is seized by vertically moveable gripper
3 New plate is inserted automatically
4 Used plate is removed by operator. End of plate change

Innovative and effective

RollerTronic – the printer-friendly roller bearing

In today's commercial market the focus is on process optimisation and cost efficiency. Our unique RollerTronic patented automatic roller bearings make a key contribution. This is reflected in the fact that so far over 40,000 have been fitted in newspaper and commercial web presses.

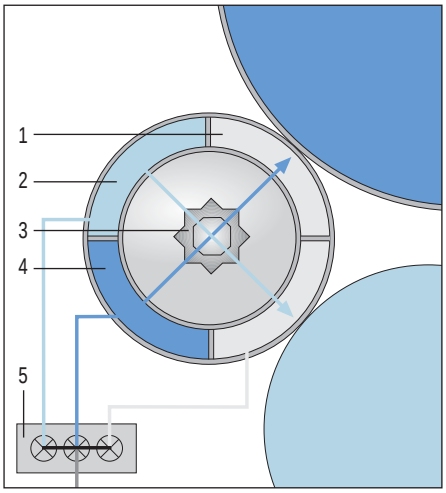
When actuated by push-button from the console panel, RollerTronic automatically sets and adjusts all the inking rollers in less than two minutes. Irksome time- and cost-intensive manual roller setting, and the hours of down time associated with it, are history.

Rollers set with optimum precision ensure that ink is transferred uniformly across the entire width. RollerTronic dramatically reduces roller abrasion and thus the frequency with which rubber coatings must be replaced, thereby delivering further cost savings. It obviates uneven wear and tear arising from the incorrect positioning of the rollers relative to each other.

Correct roller settings reduce maintenance costs and energy consumption while promoting optimum production conditions.

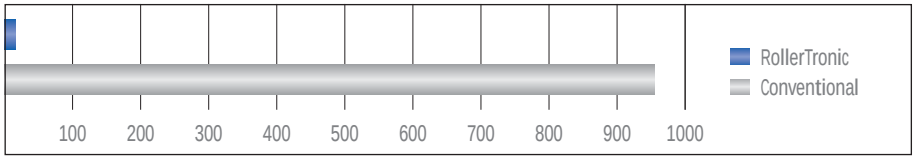
Benefits of RollerTronic:

- Much lower maintenance costs
- Less frequent renewal of rubber coating
- Better energy efficiency
- Greater process stability
- Optimum printing conditions

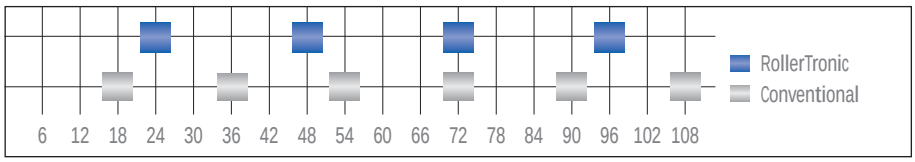


Automatically adjustable roller bearing
1 Pressure chamber for roller throw-off
2 Pressure chamber for setting roller relative to ink distributor
3 Blocking mechanism (after automatic setting)
4 Pressure chamber for setting roller relative to plate cylinder
5 Module for controlling setting direction and pressure

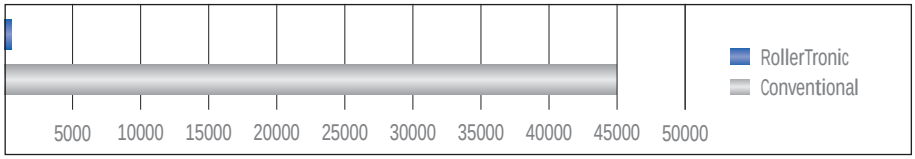
Roller setting time in minutes



Recoating frequency in months



Cost of setting rollers in four printing units



Fast and versatile

For greater flexibility

Superstructure capabilities have a major impact on the variety of products that can be printed, and on the cost efficiency of the entire press line. The superstructure on the C48 SG and C56 SG allows the web to be slit into ribbons of different widths. The turner bars are cantilevered for ease of access and a fast infeed.

Optimised ribbon guides with reinverting rollers promote a smoother web run and preset. Maintaining a constant ribbon tension both individually and collectively is easier because the ribbons are all more or less the same length. Clearly defined ribbon paths allow superstructure components to be preset even for products which are being printed for the first time.

The patented microporous turner bars are one of the many proven features that are unique to KBA. They dramatically reduce the consumption of compressed air and thus conserve energy. Also, they do not need to be set for different ribbon widths. Contamination- and smear-free, they operate reliably with a minimal air cushion to promote a smooth ribbon run.

The configuration of the superstructure on the C48 SG supports six ribbons, and on the C56 SG eight ribbons, with the main former capable of handling up to six ribbon sections. Adding optional features such as a skip slitter, ribbon and section stitchers, gluing and softening devices and a splitting unit at the folder delivery enables the two presses to handle an enormous range of products to address diverse market demands.

The slitter assemblies can be individually adjusted by remote control from the console and are preconfigured for dust extraction. The slitting point between the upper and lower knife is defined precisely for a clean scissor cut with very little blade abrasion or paper dust.

Opposite page:
New turner-bar materials ensure a smooth, stable web run

Above: A skip slitter (right former) expands the production options

Left: Slitter assemblies for a precise scissor cut

The electrically controlled dedicated drives for the draw rollers maintain a constant web tension. They are preset and adjusted from the console, dramatically shortening both setting and makeready times. Prior to infeed into the superstructure the web is cooled to the ambient temperature by chill rollers. Our four- or five-roller KBA chill-roller stands have a large wrapping angle for maximum impact. This reduces the consumption of cooling water and energy. Heatset dryers with a built-in chill-roller stand are available as an option.

Enhanced productivity

Fast pin folding

The folder determines production speed and product diversity. The C48 SG and C56 SG are configured with a P5 pin folder (2:5:5 cylinder ratio) designed to support high web speeds.

The folder is fully embedded in the press's dedicated drive system. So there are no abrasion-prone gears and clutches, and any modules not required for the next job are automatically disengaged during conversion. This reduces both wear and maintenance, thus increasing press productivity. The circumferential setting of the paddle wheel can be adjusted on the fly for copies of different weights, enhancing the precision with which the copy stream is delivered. The position of the paddle wheel is preset automatically during job change.

Additional features such as on-the-run depth adjustment for cross perforation, and copy slowdown in the delivery, make the press crew's work much easier while boosting folder productivity and reliability.

A pneumatic belt-tightening system effectively counters elongation and maintains a constant tension. This reduces abrasion and thus maintenance input. Belt tension can also be adjusted on the fly.

A high level of production flexibility, rapid conversion and precision folding, yet low maintenance, total reliability and ergonomic operation are the properties demanded of today's commercial folders. The P5 delivers on all counts.


Rexroth

Folding options

Perfect copies in every format

Production with full-width web via 1 former	
C56 SG*	C48 SG*
• 1 x 56 A4 pages collect or 2 x 28 A4 pages straight	• 1 x 48 A4 pages collect or 2 x 24 A4 pages straight
• 1 x 64 reduced A4 pages collect or 2 x 32 reduced A4 pages straight	• 1 x 56 reduced A4 pages collect or 2 x 28 reduced A4 pages straight
• 1 x 96 pages collect or 2 x 48 pages straight	• Up to 2 x 12 A3 pages or 2 x 16 reduced A3 pages
• Up to 2 x 14 A3 pages or 2 x 20 reduced A3 pages	
Production with full-width web via 2 formers	
C56 SG**	C48 SG*
• 2 x 8 A4 pages + 2 x 6 A3 pages straight	• 4 x 4 A3 pages
• 2 x 10 reduced A4 pages + 2 x 8 reduced A3 pages straight	• 4 x 12 A4 pages or 4 x 14 reduced A4 pages
• 2 x 12 reduced A4 pages + 2 x 10 reduced A3 pages straight	• 8 x 12 A5 pages up to 4 x 24 A5 pages or up to 2 x 40 reduced A4 pages or 1 x 80 reduced A4 pages
• 2 x 24 reduced A4 pages + 2 x 4 reduced A3 pages straight	
Production with full-width web and skip slitter via 1 former	
C56 SG*	C48 SG*
• 1 x 28 A4 pages + 1 x 14 A3 pages	• 1 x 24 A4 pages + 1 x 12 A3 pages
• 1 x 32 reduced A4 pages + 1 x 16 reduced A3 pages	• 1 x 28 reduced A4 pages + 1 x 14 reduced A3 pages

* with auxiliary equipment

These are just a few of the options available with the C48 SG and C56 SG.

Open Ergonomic Automation System

Efficient dialogue with the press

The KBA ErgoTronic console, KBA EasyTronic automatic press presetting system and KBA LogoTronic production management system are the primary components in the integrated automation concept for the C48 SG and C56 SG. Intelligent control technology at subassembly level and concise data screens ensure that the operator at the console has total control of the press at every stage of production. Our module-based OPERA (OPen ERgonomic Automation) system incorporates all the requisite modules for a rapid dialogue between man and machine.

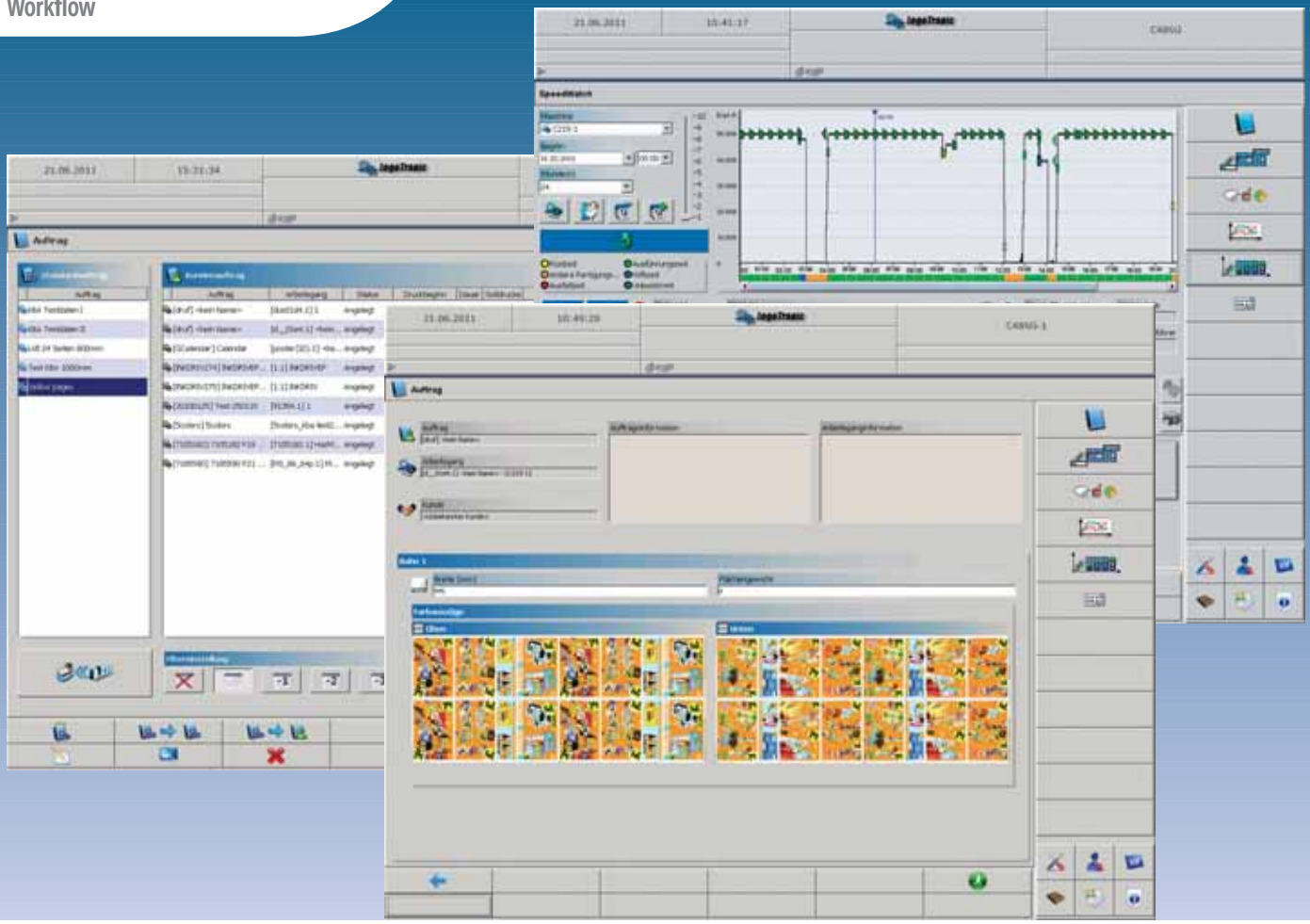
KBA ErgoTronic
The console for the new C48 SG and C56 SG is a perfect interplay of functionality and aesthetics. All essential production commands, including automatic folder conversion, are initiated at the console. Easy-read data screens with plain-language displays on the touch screen facilitate operation.

KBA SupportOnline
A 24/7 service hotline ensures prompt and effective customer support. The computer in the service department can communicate with the C48 SG and C56 SG via a network or the internet. Any malfunctions that may arise are generally detected within a very short space of time, so remedial action can be initiated without delay.

KBA ColorTronic
The ColorTronic desk is the operator's primary workstation. It supports optimum colour setting and incorporates a colour presetting system as a standard feature. The colour profile is depicted as a broad LED band, allowing prompt correction.

KBA CIPLink
A CIPLink interface for transferring pre-press data is included in LogoTronic. CIP3 files are accessed via a local network. A CIP4 capability is available as an option.

KBA EasyTronic
Our EasyTronic automatic press presetting system, which includes slitter, turner-bar, register-roller and former preset during job changes, boosts productivity and at the same time helps to minimise waste, e.g. through rapid web tensioning, run-out washing (depending on product) and defined pre-inking. The ability to preset all the components in the superstructure and the folder according to pre-press data is available as an option. Optimised press start-up, makeready and run-down are actuated at the touch of a single button.



KBA LogoTronic

Digital workflow

Among printers today the concept of an integrated workflow from order reception to print production and distribution is steadily gaining currency. The diversity of equipment and software installed means that shrink-wrapped packages are rarely appropriate, so workflows must be customised using existing kit with the addition of bought-in components where necessary. We offer suitable tools in the form of LogoTronic and LogoTronic Professional, and also work closely with prominent providers of proprietary software. This enables us to offer integrated networks based on JDF (Job Definition Format).

Basic presetting data in the printing units, superstructure and folder can be stored for future use, substantially reducing makeready times and waste when printing repeat jobs. Continuously improved since its launch, LogoTronic has a standardised, easy-to-use graphical user interface and can be embedded in the central console, furnishing the operator with an overview of all the systems required for fast job changes.

LogoTronic

A standard feature of all KBA commercial presses, the basic version of LogoTronic enables essential presetting data to be transferred directly to the press. It includes a CIPLink module for the CIP3-/CIP4-compliant transfer of data for press preset, with reel- and ink-data capture available as an option. The workflow is networked using the in-house hardware (server). Ink-key, colour and dampening data can be transferred to the press for presetting.

LogoTronic Professional

As an option the console can be configured with LogoTronic Professional, an open-architecture production management system that supports production monitoring, the digital flow of job and presetting data, and the systematic evaluation of production data. It connects the press to upstream production planning and scheduling systems and commercial IT. This well-proven system translates production and administrative data into meaningful statistics and makes for greater transparency by capturing press and operational data.

LogoTronic Professional is a key link in the communication chain between the KBA press and the printshop's management information system. New KBA presses can be embedded at any time in an existing LogoTronic Professional scenario with KBA sheetfed, newspaper and commercial web presses, creating both synergy gains and a uniform platform for all the presses in the printing plant. The database can be accessed either direct or, as an option, via JDF.

KBA C48 SG and C56 SG

At a glance

Specifications	
Maximum production speed	60,000 iph
Maximum web speed	14.8 mps / 2,912 fpm
Cylinder circumference	890 mm / 35 in (more on request)
Web width	C48 SG 2,060 mm / 81.1in, C56 SG 2,280 mm / 89.76in
Printable stock weights	36 - 130 gsm / 19 - 83 lbs
Plate-changing time	approx. 2 min.
Webbing-up speed, with chain	40 mpm / 131 fpm

Standard equipment	
KBA reelstand with integrated infeed unit	
Spreading roller	Superstructure
Printing units	Silicone unit
Automatic plate changers	Web-centre control
Blanket-washing system	Colour-register control
Ink-pumping system	Cut-off-register control
Dampening system	Length gluing unit
Web catcher (Baldwin)	P5 pin folder
Dryer with/without post-incineration	Plate punch
Dryer with/without integrated chill roller stand	Bending machine for plates and metal blankets

Opera (standard)
KBA ErgoTronic console
Remote adjustment of inking unit, dampening unit and register
KBA DriveTronic shaftless drives
KBA LogoTronic production management system
CIP3 integration

Optional equipment
KBA Patras reel-handling system
Desk lighting
Height-adjustable desk
Remoistening unit
Colour-density control
Compressed-air unit
Chilling station

Opera (optional extras)
KBA LogoTronic Professional production management system
KBA EasyTronic automatic press presetting

The KBA C48 SG and C56 SG from
Koenig & Bauer AG

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