

KBA C32 to C80

Productive high-performance web presses for publications printing on an industrial scale





Competitive advantage

Utilising market opportunities

The C32, C48, C56, C64, C72 and C80 double-circumference presses are powerful, highly automated long-grain presses for printing high-volume publications with 32 to 80 A4 pages.

Innovative technology, high cost efficiency, production flexibility and ease of use are just some of the winning features that make KBA commercial web presses stand out from the competition. What's more, as the longest established and most versatile press manufacturer worldwide, we offer the stability and reliability you need for greater planning certainty.

Notwithstanding the shifting media landscape and the inexorable rise of digital printing, commercial web offset presses for printing commercials, supplements, books, catalogues, advertising brochures and newspapers are set to remain one of the dominant production processes in the graphic arts industry. That said, commercial printers are now expected to meet increasingly sophisticated demands in terms of print quality, per-copy costs, delivery speed and format flexibility. KBA web presses are engineered to handle such demands and offer automation where it increases net output or reduces operating and maintenance requirements. And it goes without saying that we also offer a broad range of optional modules that enable an optimum press configuration tailored to your production requirements or allow you to configure your press to suit your market. The "C" stands for highperformance, high-volume systems for supplements and top-quality commercial printing, and special presses for printing books.

Winning features in brief

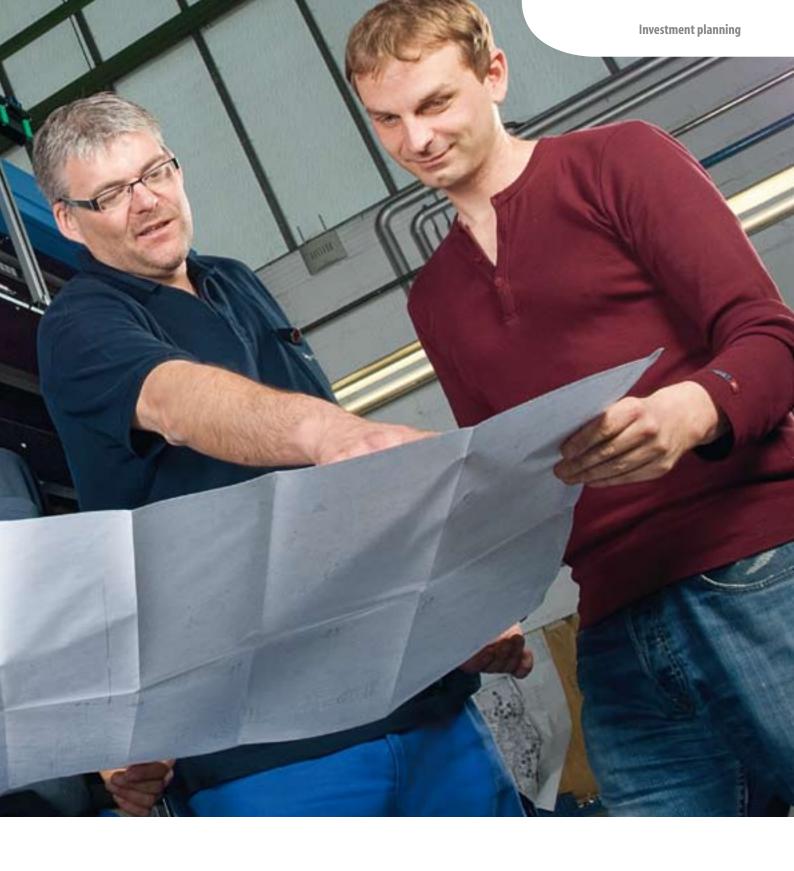
- Up to 50,000 iph for high productivity
- Minimised lock-up slots to cut paper consumption and enhance format flexibility
- Automatic plate changing
- KBA RollerTronic automatic roller locks for low maintenance and high quality consistency
- New-generation film inking units for precise and uniform ink application
- KBA DriveTronic shaftless drives throughout
- Cantilevered turner bars and formers for easy access
- Automatically convertible P5 folder for the most common types of product
- Unique variable-format V5 gripper folder for both short- and long-grain copies
- Innovative belt tension system for low wear and precision folding for P5 and V5 folders
- Fully automated copy control in the quarterfold for P5 and V5 folders
- Cutter for maximum productivity
- Cutting-edge control technology with intelligent press preset via KBA LogoTronic
- JDF-based process integration via KBA LogoTronic Professional



Shrewd investment planning

Low life-cycle costs

For commercial printing, a KBA Compacta is the perfect choice, whatever the application. Our presses are purpose-designed in close collaboration with you, the customer, and benefit from the most extensive pool of experience in press manufacturing and the most advanced engineering and production processes currently available.



As with any investment, careful planning is the key to success. Here at KBA, exhaustive feasibility studies are followed by detailed project planning and scheduling. Our universally acknowledged high-precision engineering, supported by cutting-edge CNC processing stations, guarantees a superlative manufacturing quality and a long service life.

Mature technology in the fields of control and automation saves time and reduces manning costs. Pre-installed units cut assembly and commissioning times. The robust design engineered for 24/7 operation, low maintenance requirements and our global after-sales service network combine to ensure maximum reliability.

Paper logistics

Just in time

KBA's integrated paper logistics system enables you to automate your entire paper flow, from reel reception and storage to the on-demand delivery of the prepared reels at the reelstands, loading onto the reelstand arms, and removal and disposal of the empty cores.

Remote control and monitoring of the individual sequences from cutting-edge consoles is a key feature.

KBA Patras is robust yet flexible, requires a minimum of maintenance and represents 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 manual to fully automated, supporting total customisation to suit both your production technology and the space available.

The KBA Pastomat high-performance reelstand with central drive can be easily integrated into an automated paper logistics system.

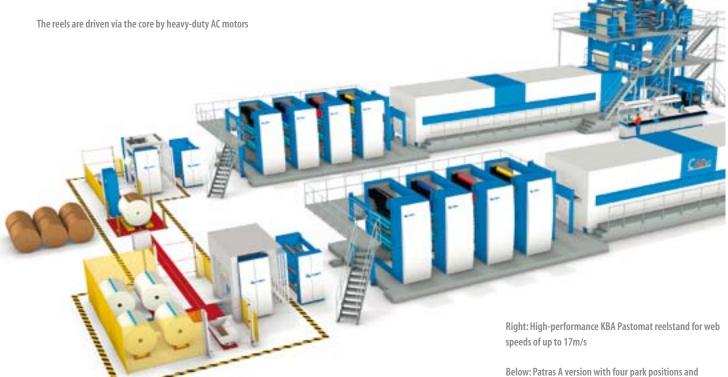
KBA reelstands are all equipped with divided adjustable motorised arms and can handle paper reels with a width of more than 2m (6ft 6in) and a weight of more than 6 tonnes (6.6 US tons).

A new reel is automatically spliced onto the expiring web at full production speed. The Pastomat beltless technology makes for easy splice preparation. The divided arms on the Pastomat are infinitely adjustable by remote control. Their ability to handle reels of different widths affords a high level of flexibility in handling a wide range of different products.

See separate brochures for more information on our efficient KBA Patras paper logistics and new-generation KBA Pastomat reelstand.

connection to an existing web offset press









Quality and production reliability

First-class printing units

The printing units of the KBA C double-circumference presses combine high-quality press manufacture with state-of-the-art electronics. They are specifically engineered for the harsh realities of high-volume triple-shift production.

The printing plate and blanket cylinders guarantee a smooth press run and superb commercial print quality, even at the maximum web speed of 17m/s. And setting KBA commercial web presses apart from the many cheap products on the market: rigid, box-type side frames made of solid cast iron that prevent vibration – an absolute essential for a high-grade

print quality and the sound basis for many years of low-maintenance, reliable operation.

Whether you are printing high-circulation or high-pagination, low-circulation products, our heavy-duty double-circumference presses will deliver big bottom-line benefits.

Left: Excellent accessibility to the upper printing units at the drive side of the C48 48-page web press

Right: All functions at a glance: operator panels and screens on the printing unit reduce walking distances for the press crew



Focus on print quality

Ink on the dot

The film inking units on KBA double-circumference presses raise the bar in precision inking. Specially designed rollers put ink to plate with absolute precision and uniformity so that both delicate lines and problematical images are transferred to paper with equal clarity.

The oscillation of the four specially coated ink drums ensures an exact distribution of ink. The ink drums and duct rollers are connected to an ink-temperature control system and guarantee a uniform ink temperature for an optimum print quality. The circulation systems for the cooling water are controlled separately.

Four forme rollers, one of them reciprocating, transfer the ink uniformly to the plate and reliably prevent ghosting. The speed of the motor-driven duct roller can be regulated both from the console and from the ColorTronic desk. The inking

and dampening duct rollers have freely storable acceleration curves.

The high-capacity ink ducts with rigid crossheads and a precisely defined throwon position can be connected to a central ink supply. The ink knives are segmented into zones and can be preset and remotely adjusted from the ColorTronic desk. A digital link to obtain presetting values from pre-press is standard.

Alcohol-free dampening units enhance press ecology and economy. The electrically driven rubber-coated duct

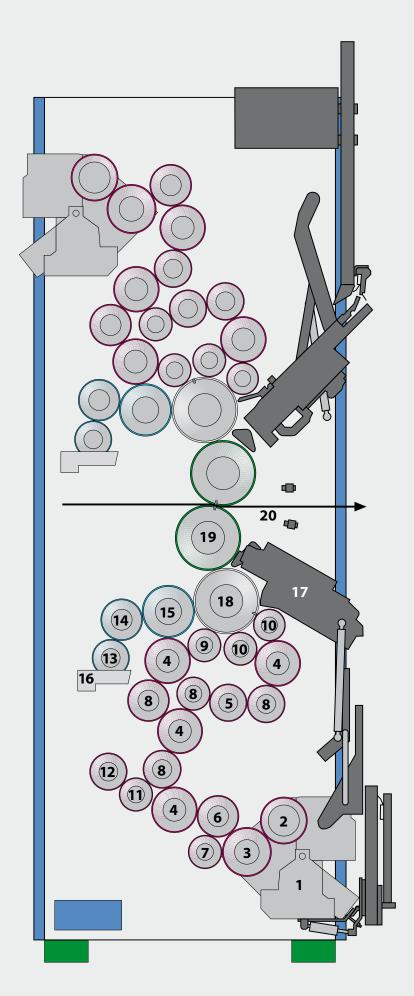
roller, the chrome roller for dampening transfer and the large-diameter reciprocating plate dampener create a rapid ink/water balance during press start-up. The plate dampener, like the ink forme rollers, follows the plate cylinder during cocking and is thrown on and off pneumatically during job changes. The dampening pan, with its double-walled insulation and two dampening feeds, ensures that the solution temperature remains constant and homogeneous across the entire web width. The temperature and the level of the fount solution are monitored electronically.



Right: Film inking unit for a superb print quality

Dampening unit for alcohol-free printing





- 1 Ink duct
- 2 Duct roller
- 3 Film roller
- Ink distributor
- Ink transfer roller (Rilsan-coated)*
- Ink transfer roller
- Rider roller
- 8 Ink transfer rollers
- 9 Ink forme roller, oscillating
- 10 Ink forme rollers
- 11 Ink transfer roller
- Doctor blade roller 12
- Dampening duct roller 13
- 14 Chrome roller, oscillating
- 15 Dampener forme roller, oscillating
- 16 Dampening duct
- 17 Automatic plate changer
- 18 Plate cylinder
- 19 Blanket cylinder
- 20 Paper web
- * SprayLow roller reduces ink spray and mist. The rougher surface is more ink-receptive and empties the film roller more precisely than rival rollers

Output up — consumption down

Printing unit in detail

KBA double-circumference presses are designed for maximum productivity. Plate changing is fully automated to cut makeready and down times. The reliability and low maintenance demands of our automatic plate-changing systems have been proven on countless commercial and newspaper presses.

Two AC drives per printing unit allow the plates in the upper and lower printing units to be changed simultaneously. But that is not all: the drive concept also enables the circumferential register to be set fast and precisely with a minimum of mechanical input. The electric motors controlling the setting mechanisms offer far greater precision than mechanical systems.

Because there are two motors for each printing unit, less braking and accelerating force is generated than with the singlemotor systems more common today. This technical innovation helps reduce mechanical abrasion on components, which, in turn, means less maintenance. The printing units are water-cooled to promote operational consistency, even during long production runs.

The circumference of the plate and blanket cylinders has been reduced by minimising the lock-up slot. This has the advantage of not only reducing paper consumption but also of enhancing print quality by eliminating vibration at high press speeds.

The plate cylinder and solid steel blanket cylinder are both nickel-plated, dynamically balanced and run in maintenance-free triple-ring bearings with zero play. Broad bearer rings made of special steel ensure a smooth run and increase the service life of the press. The blanket is tensioned evenly via two spindles. Adjustment of the sidelay, circumferential and diagonal register from the console cuts makeready times and waste.

The tempered blanket cylinders and smooth-running carbon-fibre inking rollers in our high-performance and high-pagination presses ensure a stable printing process in continuous operation. The fact that there are more large-diameter inking rollers compared to rival presses ensures uniformity and rich solids throughout the production run. The bigger roller diameter also means less roller abrasion. This also applies to the large-format dampener forme rollers of our new double-circumference C-series presses.









Automatic plate changing

- 1. Ejection of used plates, new plate in holding position
- 2. Used plate is seized by vertically moveable gripper
- ${\it 3. \ New \ plate is \ automatically \ inserted}$
- 4. Used plate can now be easily removed by operator. End of plate change.

Innovative and effective

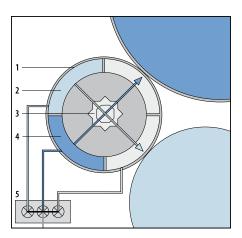
RollerTronic — the printer-friendly roller lock

Our unique KBA RollerTronic patented automatic roller locks make a key contribution towards ease of operation, reduced maintenance requirements and cost efficiency. This is reflected in the fact that to date more than 50,000 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-consuming and costly manual roller setting, and the associated hours of down time, are now a thing of the past.

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.

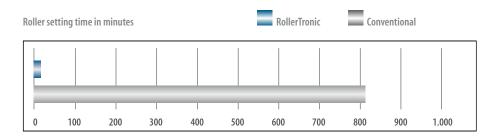


Benefits of RollerTronic:

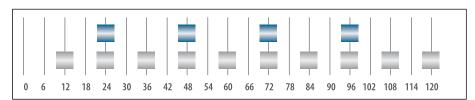
- Much lower maintenance costs
- Less frequent renewal of rubber coating
- Better energy efficiency
- Greater process stability
- Optimum printing conditions

Automatically adjustable roller bearing

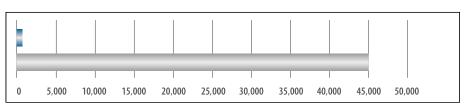
- 1 Pressure chamber for roller throw-off
- 2 Pressure chamber for setting roller relative to ink distributor
- 3 Blocking mechanism (after automatic setting)
- 4 Pressure chamber for setting roller relative to plate cylinder
- 5 Module for controlling setting direction and pressure

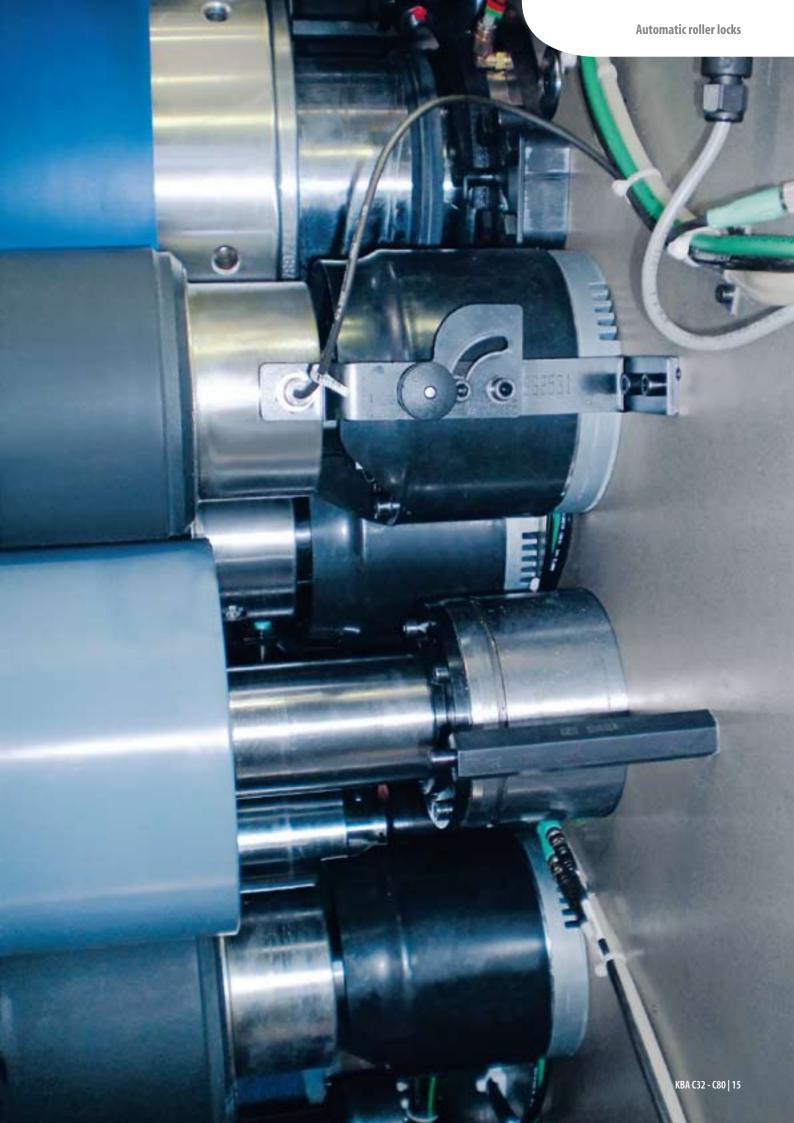


Recoating frequency in months



Cost of setting rollers in four printing units







Fast and versatile

Superstructure flexibility

Superstructure flexibility has a major impact on the variety of products that can be printed in the entire press line. The superstructure of the double-circumference presses allows the web to be slit into ribbons of different widths. The turner bars are cantilevered to allow rapid webbing-up and free access to the superstructure.

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 accelerate the presetting of superstructure components, 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. They also do not need to be set for different ribbon widths. Contamination- and smear-free, the turner bars operate reliably with a minimal air cushion to promote a smooth ribbon run.

In combination with optional features, such as skip slitters, ribbon and section stitchers, gluing and softening devices and a splitting unit at the folder delivery, these presses can handle an enormous range of products addressing widely diverse market demands.

The slitter assemblies support individual motorised adjustment 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.

The electrically controlled dedicated drives for the draw rollers maintain a uniform web tension. They are preset and adjusted from the console, dramatically

slashing both setting and makeready times. Cooling rollers cool the web to ambient temperature prior to infeed into the superstructure. The four- or fiveroller KBA chill-roller stands have a large wrapping angle for maximum efficiency. This reduces the consumption of cooling water and energy. Hot-air dryers with integrated chill-roller stand are available as an optional extra.



Colour measurement and control for a perfect print quality



Slitter assemblies guarantee a precise scissor cut



New turner bar materials ensure a stable web run

Enhanced productivity

Fast P5 pin folder

The folder determines the production speed and product diversity of any web offset press. KBA double-circumference press configurations that include a P5 pin folder with five-part cylinders are designed to accommodate high web speeds.

The modular design of this highperformance press means that you can specify the configuration best suited to your operations and your market.

The basic version offers a choice of production runs with first crossfold and quarterfold in collect and non-collect mode. A double quarterfold and overhead copy guidance into the delivery of the lower quarterfold are standard features, as are length and cross perforation. The next expansion option is a separate delivery for crossfold production. The third expansion phase is the installation of a second parallel cross fold. A section stitcher is also available as an optional extra.

Whatever the level of sophistication you choose, you will find that the convenience and speed of automated press presetting and conversion from the console will support a wide variety of products by helping to minimise makeready and changeover times. With the P5 you can keep abreast of market trends by offering your clients new and attractive products.

Winning features are the remotely adjustable first and second crossfold, and a quarterfold unit comprising a single module. This supports a wide choice of folds while dramatically



Some ingenious features in the superstructure allow the folder to handle a huge variety of products

shortening changeover times. The length and depth, as well as the depth and circumference, of length and cross perforation can be adjusted on the fly in order to adapt perforation and folding accuracy to stock type and production conditions with a minimum of waste.

Belt paths in the P5 folder are shorter and wider to ensure a smooth copy transport.

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.

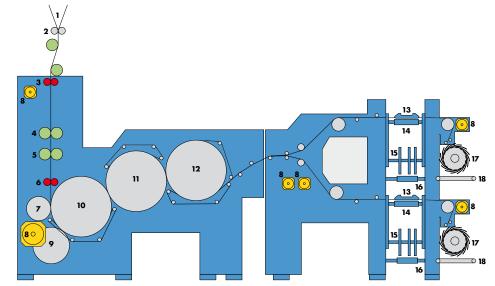
The P5 and V5 folders in our newgeneration double-circumference presses have automated copy control in the quarterfold, a feature that has already proven its efficacy in the C16.

Copies are slowed effectively and with a minimum of abrasion, while simultaneously being aligned in the direction of fold during deceleration. Automatic copy control is self-adjusting and exceptionally reliable, regardless of production speed and copy thickness. As a result folding is consistently accurate, even during changes in press speed.

The P5 folder combines production flexibility, rapid conversion, accurate folding and low maintenance with extreme reliability and easy handling.



- 1 Former
- 2 Forming rollers
- 3 Driven draw rollers
- 4 Length perforation
- 5 Cross perforation
- 6 Driven draw roller
- 7 Cut-off cylinder
- 8 Distributed drive
- 9 Stitcher
- 10 Collecting cylinder
- 11 Folding-jaw/folding-blade cylinder
- 12 Folding-jaw cylinder
- 13 Quarterfold blade
- 14 Folding rollers
- 15 Spider wheel
- 16 Sheet delivery
- 17 Crossfold spider wheel
- 18 Crossfold delivery



Getting to grips with change

Variable-format V5 gripper folder

Web offset printers whose flexibility is often limited by the fixed format of their presses will welcome our V5 gripper folder's ability to process both short- and long-grain products.

This option has already motivated many users to opt for one of our double-circumference presses. The know-how invested in the V5 is drawn from KBA's longstanding experience with gravure printing folders.

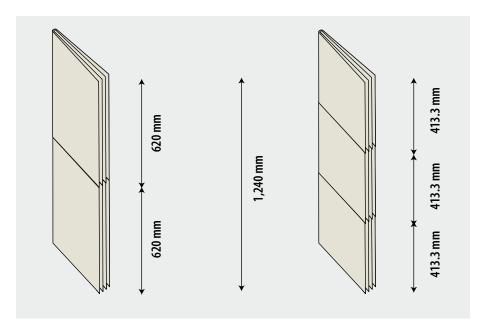
The flexibility offered by the V5 gripper folder means that, in the case of the C72 for example, it can deliver 72 A4 pages in long-grain production, while in short-grain production it can deliver 96 copies in near-A4 format. The V5 is thus an effective asset in an increasingly competitive commercial printing market.

In order to make the most of this versatility you need a superstructure capable of handling a large number of ribbons. Cut-off cylinders at the infeed to the V5 folder allow different cut-off lengths, e.g. 620 or 413.3 mm (24.4 or 16.27in). It goes without saying that the V5 incorporates all the familiar technical features of the P5 folder including dedicated plate-cylinder drives.

By supporting a far broader range of products the V5 maximises web press utilisation without the need for aggressive price concessions, thus enhancing press economy. By offering an extensive range of products you can stand out from the competition and react more flexibly to shifts in market demands.

The V5 also offers many other benefits, including more room for manoeuvre in a fiercely competitive marketplace. In some cases, it can even save you the expense of investing in a second press for short-grain products. Exploiting the V5 folder's full potential can bring substantial bottomline benefits.





The upstream cut-off cylinder allows variable cut-off lengths

Trimming production costs

Simple cutter handling

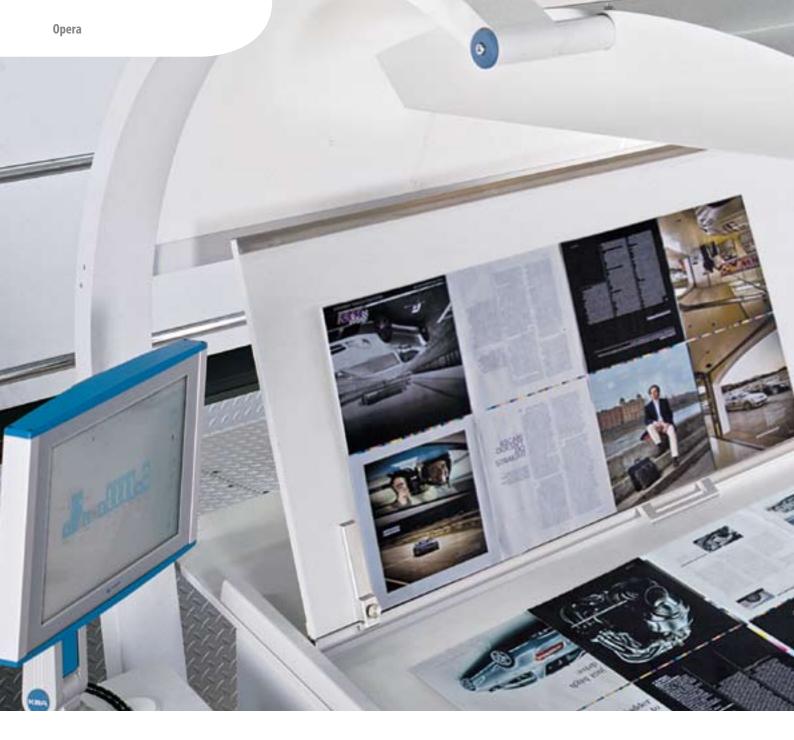
The KBA cutter dramatically lowers investment and production costs. The moving parts all rotate, so there is no braking effect caused by deflection and the press can run at the optimum speed for the job.

This is a big advantage – particularly when printing low-pagination copies – and substantially reduces costs while enhancing output. In some cases, the cutter offers a useful alternative to our commercial folders. It optimises production of 4-, 8-, 12- and 16-page copies.

Key features:

- Cuts to 1/3 or 1/4 circumference
- Two infeed formers, movable sideways and with the web run
- Variable infeed width
- Variable length trimming opposite the former nose
- Splitting units in the spider wheels





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 C series' integrated automation concept. 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 C series 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 Support Online

A 24/7 service hotline ensures prompt and effective customer support. The computer

in the service department can communicate with the C series 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 and permits optimum handling of the ink settings. A presetting system for the ink keys is part of the standard package. Broad LED strips provide an immediate indication of the ink profiles set and facilitate fast corrections when necessary.

KBA CIPLink

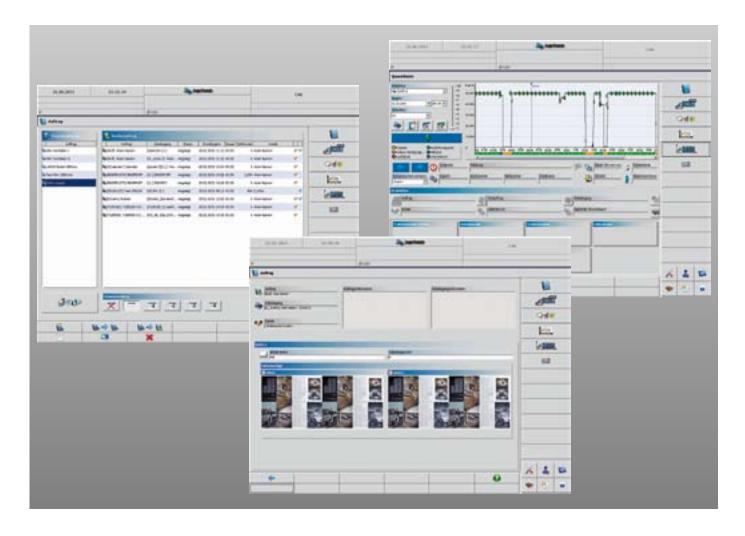
A CIPLink interface for transferring prepress data is included in KBA LogoTronic.

CIP3 files are accessed via a local network. Optional CIP4 capability is also available.

KBA EasyTronic

Our KBA EasyTronic automatic press presetting system boosts productivity and helps to minimise waste. Winning features include rapid web tensioning, automatic presetting of the cutting unit, turner bars, register rollers and former when setting up a new job, run-out washing in accordance with production demands 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 a further option. Optimised press start-up, makeready and run-down are actuated at the touch of a single button.



KBA LogoTronic

Digital workflow

The concept of an integrated workflow, from order reception to print production and distribution, is steadily gaining currency with today's printers. The diversity of equipment and software installed means that off-the-peg solutions are rarely appropriate, so workflows must be customised using existing equipment and configured to individual requirements 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).

The basic presetting data of previous production runs 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

to give the operator an overview of all the systems required for fast job changes.

LogoTronic

All KBA commercial web offset presses are fitted with the basic version of LogoTronic as standard. This ensures transfer of essential preset data to the press. It includes an optional CIPLink module with reel and ink-data capture. The workflow is networked using in-house hardware (server), and ink-key, colour and dampening data can be transferred to the press for presetting.

LogoTronic Professional

As a further 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 crucial 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 supports direct access or access via JDF.

PressWatch

The LogoTronic component PressWatch provides management with an overview of all the jobs currently being run. Counter states, printing speeds, job data and progress, press status messages and a whole array of other relevant information can be displayed in real time.

SpeedWatch

SpeedWatch also creates a time/speed diagram in real time, with which all events and messages for a selected press can be depicted. Authorised persons can access this information via the internet or the company intranet.

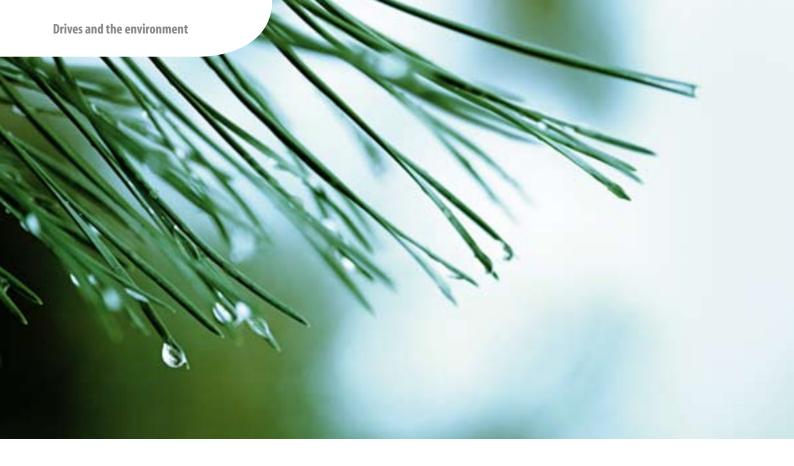
JDFLink with LogoTronic Professional

Interconnection of LogoTronic Professional via the universal interface JDFLink offers the following advantages:

- Uninterrupted automated workflow (job data can be passed directly from dedicated software to the press console, eliminating job dockets)
- Access to LogoTronic Professional from all connected workstations
- Presetting and repeat data help shorten makeready times
- More effective production per shift

- Less waste
- Single data input enhances efficiency and reduces the risk of errors
- Improved cost accounting on the basis of exact press and production data (no daily worksheets to be completed by hand)
- Clearer overview through ability to retrieve all job, presetting and press data
- Comprehensive and transparent information for management





Environmentally-friendly printing

Efficient and ecological dedicated drive technology



KBA double-circumference presses have been fitted with DriveTronic direct drives for many years. Operation of the AC motors is process-oriented, i.e. the speed or torque is variable and requires minimum energy.

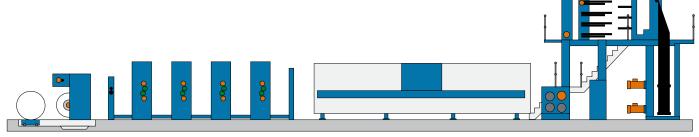
Our new-generation drives comply with current energy efficiency regulations.

KBA commercial web offset presses reduce the emission of volatile solvents.

Evidence has shown that low waste and low-alcohol or alcohol-free printing processes have significantly reduced

VOC emissions. This not only makes an ecologically sound contribution to the environment, it also helps eliminate health hazards, thus creating an ergonomic and healthy workplace.

Dedicated drivees from the reelstand through the printing units and superstructure to the folder



KBA C32 - C80

At a glance

Technical data	C32	C40	C48	C56	C64	C72	C80
Circumferences* in mm	1,156-1,240						
Circumferences* in inches	45.5-48.8						
Max. web width* in mm	1,000	1,075	1,450	1,680	1,905	1,980	2,280
Max. web width* in inches	39.37	42.32	57.09	66.14	75	77.95	89.76
Max. production speed	45,000 iph*	*					

^{*} Further circumferences and and web widths available on request ** Optional 50,000 iph

Standard features

- KBA reelstand
- Stretching roller
- Blanket washing unit
- Web catcher
- KBA chill-roller stands
- Silicone unit
- Ink-register control
- Cut-off register control
- Plate-bending machine

- KBA infeed unit
- Printing units
- Dampening system
- Dryer with/without after-burner
- Superstructure with turner-bar deck
- Web quidance
- Ink control unit
- Automatically convertible P5 folder

Opera (standard)

- KBA LogoTronic production management system
- Control console (KBA ErgoTronic)
- Remote adjustment of inking unit, dampening unit and register (KBA ColorTronic)
- Shaftless drives (KBA DriveTronic)
- CIP3 integration

Opera (optional extras)

- KBA LogoTronic Professional production management system
- Online data transfer (KBA CIPLink)
- JDF or CIP4 integration

Additional equipment

- Automatic KBA Patras A reel-logistics system
- Dryer with integrated after-burner
- Height adjustment for desk
- · Cross lead for duplex presses
- Turner-bar decks
- Length gluing unit
- Cutter
- Coater and remoist gluer
- Compressed-air unit

- Ink supply system
- Desk lighting
- Web-remoistening unit
- Steel substructure for stacked configuration
- Auxiliary former
- Variable-format V5 folder
- Stitcher
- Plough fold
- Cooling station

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