



KBA Comet

The popular choice for newspapers and semi-commercials

Superb technology

Easy operation

Our KBA Comet web offset tower press boasts breakthrough technology and high-precision shaftless drives. Two or three plates across and two around make it suitable for both collect and non-collect production. More and more newspaper publishers and contract printers on every continent are making the Comet their press of choice for printing high-grade colour newspapers and semi-commercials. They appreciate its easy handling, high output and flexibility.

Like all our double-width newspaper presses the Comet incorporates a KBA DriveTronic shaftless drive system with a dedicated AC motor for each printing couple. The additional advantages this offers have established the Comet at the very top of its class.

The press is configured with H units for printing blanket-to-blanket. A choice of full or half-units for printing 1/1, 2/1 or 2/2, or four-high towers for 4/4, enables the press to be configured in accordance with individual customer specifications regarding colour impositions while keeping a tight rein on capital investment costs. If the initial configuration includes half-units, then capacity can be expanded easily – and relatively inexpensively – at a later date simply by adding the missing

couples. Heatset equipment to exploit the growing demand for semi-commercials is just one of the many extras available.

The Comet has a maximum rated output of 75,000 copies per hour in straight production and a choice of cut-offs from 500mm to 700mm (19.68 - 27.56in). Web width can range from 630mm to 1,000mm (24.8 - 39.37in).

Depending on press-hall architecture the Comet can be configured as a floor-mounted, gallery or two-floor version, with one or more press sections which can be coupled together. The logical modular design supports individuality. Cutting-edge console technology, with a choice of equipment levels, is a standard feature.

To maximise the cost-efficiency of your press over its entire life cycle we offer an all-in service package embracing training and advice, automation and a customised service schedule aimed at minimising production and maintenance costs, reducing down times and enhancing press reliability. For greater convenience, customers can now order spare parts online in our web shop.



KBA Comet – the cutting-edge press for printing colour newspapers and semi-commercials



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KBA
22

KBA
23

A brilliant print

H-type printing units

The off-bearer H units on the Comet are compact, freely accessible and easy to handle. The box-type frames on the drive and operating sides are engineered for durability, while zero-play multi-ring bearings ensure that the solid plate and blanket cylinders rotate smoothly.

The dedicated drives for the printing couples can double as auxiliary drives for plate mounting, pre-inking and washing, which saves time and eases operation.



Compact tower configuration

The four-high tower version (two stacked units) affords total flexibility in colour impositions and a superb print quality. The Comet can print 4-over-4 on one web or 2-over-2 on two webs, with the option of additional web leads according to requirements. Straightforward webbing-up reduces down times during edition changes.

Remote registration from the console

Proven, abrasion-free lock-up slots promote fast, register-true plate mounting without the need for tools. The slots are continuous to enable double-spread plates to be mounted. Circumferential and sidelay registration is remotely adjustable from the console. The shaftless drive system allows computer-aided register adjustment during press acceleration and deceleration.

Flexible webbing-up

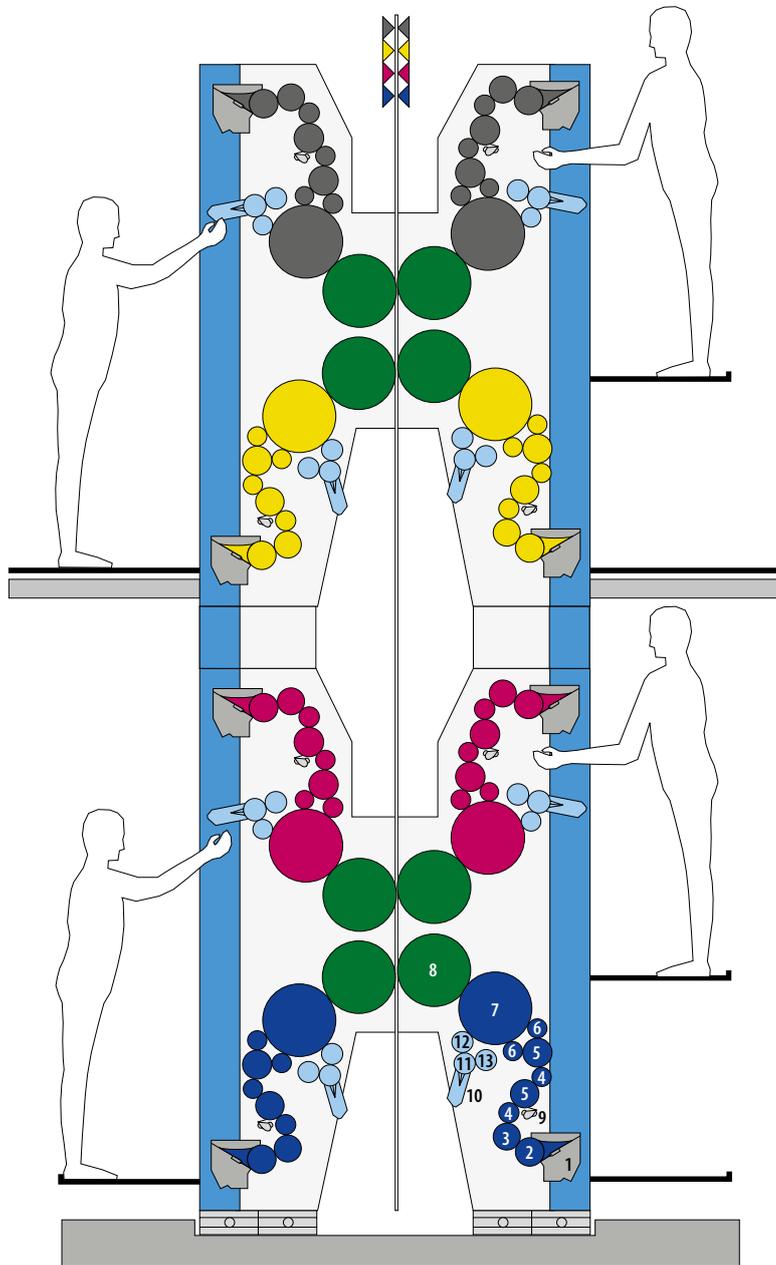
If the lower printing couples in an H unit are at 'impression OFF' the web can be fed into the idle couple even when the upper couples are in operation. There is no need to divert the web in the unused couples.

Minimised print-free margin

The blankets are tensioned with the aid of a clamping bar. For semi-commercial and directory printing the Comet can be fitted with a spindle clamping system which leaves a print-free margin of just 12mm (0.47in). A blanket-washing unit is available as an option.

Focus on safety

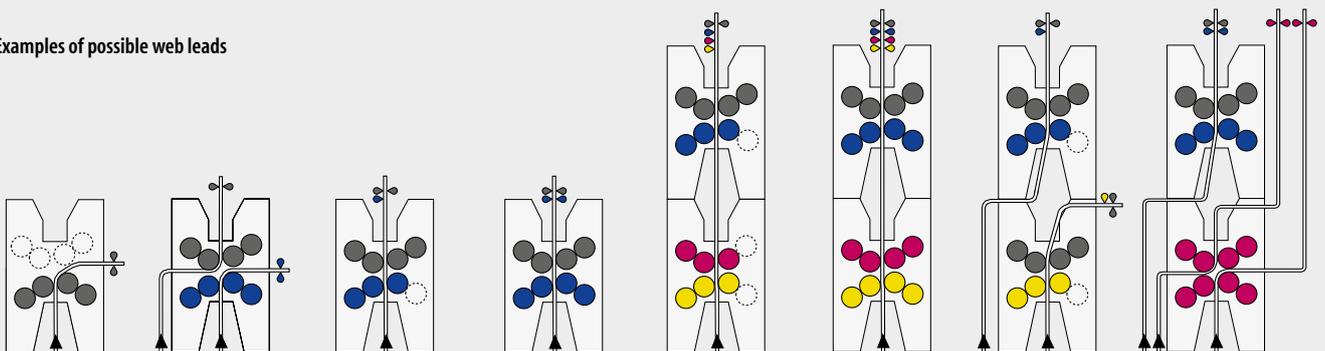
Finger-guard bars, guards on the inking and dampening units, emergency punch buttons, photoelectric sensors etc safeguard the press crew and machine aggregates.



Four-high tower of H units

- 1 Ink duct
- 2 Duct roller
- 3 Film roller
- 4 Distributor roller
- 5 Oscillating ink drum
- 6 Forme roller
- 7 Plate cylinder
- 8 Blanket cylinder
- 9 Roller-washing unit
- 10 Spray bar
- 11 Chrome roller
- 12 Plate dampener
- 13 Dampening distributor

Examples of possible web leads



Easy handling

Film inking and spray dampening units

The Comet has undershot film inking units and spray dampeners. Ergonomic operation, rapid ink changes and a stable, uniformly high print quality, even in problematical images and during long print runs, were the objectives achieved by our design engineers.

Rapid ink changes

The main component of the inking unit, the knife holder, incorporates the bleed-free segmented ink knives and their setting mechanisms. The ink ducts can be disengaged pneumatically for cleaning. The ink keys are adjusted to the specified

rollers is located at the ink drum. It is thrown on and off pneumatically and can be removed and inserted from the operating side without the aid of tools. The ink forme rollers are also thrown on and off pneumatically.



ink volume by remote control from the console. Manual adjustment directly at the ink duct is also possible.

The driven duct roller and the specially finished film roller transfer the ink film to the roller system. The duct-roller speed adapts to press speed by following a curve stored in the computer. The duct-roller motor can double as an auxiliary drive for washing the rollers. The superpolyamide-coated film roller has no mechanical contact with the duct roller and so is virtually abrasion-free.

As an option the oscillating ink drum can be connected to a temperature control unit. The washing system for the inking

Pneumatically swivelling ink ducts with a wiper blade and drip pan for quick and easy ink changes

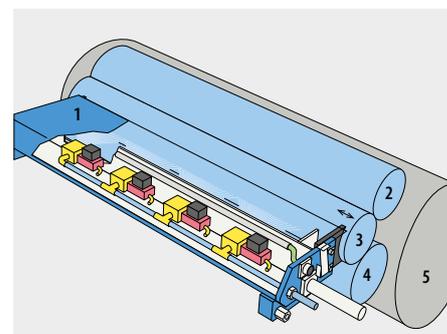
Ink changes can be carried out quickly and easily with the aid of a wiper blade with hook-on ink-changing duct which can also be used to store ink.

Low-maintenance spray dampener

The fountain solution is transferred to the triple-roller dampener via a contact-free spray bar with four nozzles. The solution is metered from the console by controlling the impulses to each of the individual nozzles. Dampening feed is adapted to press speed via characteristic curves. Individual

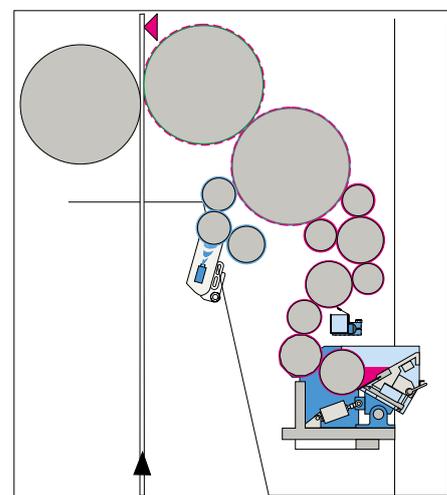
corrections can be made remotely from the console. The contact-free transfer of fountain solution eliminates contamination. A dampening feed unit is installed for each press section to filter, prepare and cool the solution.

KBA spray dampeners unite the benefits of individual, sensitive metering and a low level of maintenance.



Triple-roller spray dampener

- 1 Spray bar with four nozzles
- 2 Smoothing roller
- 3 Chrome roller
- 4 Plate dampener
- 5 Plate cylinder



Inking unit with undershot ink knives



Optimum web tension

Measurement and control

A problem-free web run and optimum web tension throughout the press are absolute essentials for a consistently reliable production run, a uniformly high print quality and minimum wastage.

Webbing-up and infeed unit

Even in the standard version, fast webbing-up is guaranteed by a web-up belt fitted on the drive side. Simple to operate and extremely reliable, the running belt offers a choice of two webbing-up paths and guides the web from the reelstand to the RTF. An optional chain system is available for even greater flexibility and a faster web-up right through the dryer.

The driven infeed unit is located in front of the printing units. It is driven by an AC motor acting directly on the draw roller. To reduce slip the web is pressed against the draw roller by trolleys. In conjunction with the DriveTronic shaftless drive system the infeed unit guarantees a uniform web tension throughout the press, even during changes in production speed.

Safe web run

Low-mass, smooth-running idler rollers promote a problem-free web run and minimise cut-off misregister during changes in press speed. All rollers that come into contact with the freshly printed web are shot-blasted and hard chromium-plated. Photoelectric web-break sensors monitor the web right up to the delivery wheel. In the event of a malfunction they actuate the appropriate safety measures. Adjustable registration units in the plate cylinder, and contact-free pneumatic web aligners between the H units in a four-high tower, compensate for fan-out.



KBA Basko

Our web-tension control system (Basko) furnishes the press operator with an effective tool for setting and monitoring the specified web tension. The standard tension is set at the reelstand and console. With the Basko system the actual web tension throughout the press is indicated on the console screen as an

easy-to-read display to support rapid intervention if necessary. There is a measuring point between the infeed unit and printing unit. The adjustable infeed units in front of the printing units, and the draw rollers in the superstructure, enable the operator to set the optimum tension for each web individually prior to the production run.





Enhanced production flexibility

Customised superstructure

The web runs into the folder via the electrically driven ribbon-gathering RTF and former

The superstructure on the Comet combines production flexibility and easy handling with a compact, durable construction. The arrangement of the draw rollers and idling rollers helps minimise makeready times.

The web is aligned by electrically driven draw rollers and a motorised cut-off register adjustment unit. Draw-roller advance and the register position are infinitely adjustable from the console. The specified values are displayed as a graph on the screen. Program-controlled repositioning of the cut-off register during changes in speed is another feature.

The superstructure on the Comet can be equipped with optional turner bars (with or without bay windows), an insertion

deck etc for even greater production flexibility.

Folder superstructure

The DriveTronic system encompasses an electrically driven ribbon-gathering RTF with pneumatic throw-on/off and a slitter for tabloids and trolleys. The ribbons then run over the air-blown 71° former into the folder. RTF advance can be remotely adjusted and controlled from the console. The folding rollers can be set separately on both sides to the specified copy

thickness. Their angle of inclination can also be adjusted in order to avoid creasing the copies.

Production requirements vary considerably from one newspaper publishing house to another. In addition to the standard former KBA offers the option of two or three balloon formers, a skip slitter, ribbon stitcher, length and/or cross perforator (eg for Zip'n'Buy detachable sidebar ads), length gluing unit etc to address these different needs.



Precision folding

KF 3B and KF 3 folders

The Comet is available with a choice of two state-of-the-art folders: the standard KF 3B or the more highly automated KF 3. Both have a 2:3:3 cylinder ratio, the same dimensions and compatible interfaces, and both can deliver a maximum of 80 pages broadsheet or 160 pages tabloid.

The two folders incorporate extensive safety features and are engineered for durability. Maintenance- and user-friendly, they are extremely reliable and deliver a razor-sharp fold. They are also fully embedded in the DriveTronic shaftless drive system and have dedicated AC drives that can double as auxiliary drives for makeready and maintenance tasks.

KF 3B jaw folder

The speed and advance of the main draw rollers in the KF 3B can be controlled either directly at the folder or from the console, and are integrated in the Comet's shaftless drive and presetting system. Jaw gap, overfold and underfold can all be adjusted centrally at the folder during makeready. The diameter of the collecting cylinder is infinitely adjustable to page count at the folder during the production run. Copy spacing in the delivery stream is also adjustable. If the web jams, an electronic copy control in the paddle wheel actuates the severing knife, which together with an electronic overload protection device in the drive motor brings the press to an immediate halt. To ensure a smooth machine run, the folding-cylinder assembly and the delivery are located in the same rigid cast-iron substructure.

KF 3 jaw folder

The KF 3 folder is extensively automated for faster conversion of production-relevant functions. The diameter of the pin cylinder can be infinitely adjusted pneumatically at the folder or the console to accommodate the specified copy thickness. Over- and underfold adjustments can be carried out remotely at the console while the press is running.

An electronic copy control with counter is located between the jaw cylinder and the delivery wheel.

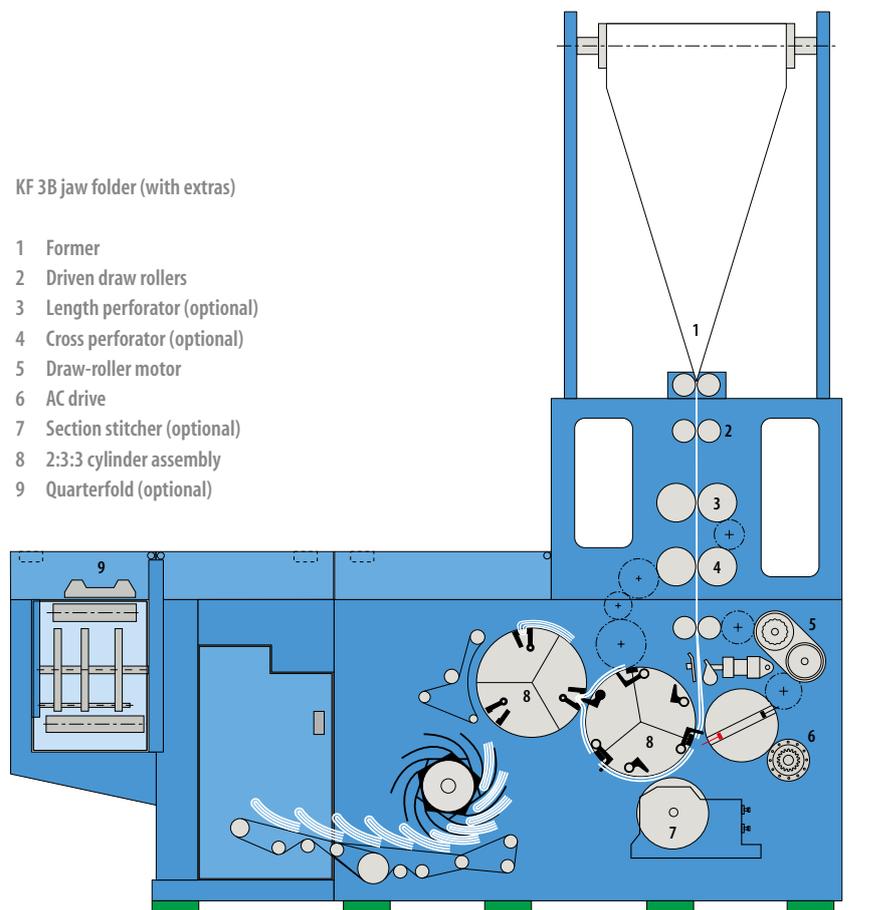
Optional extras for greater flexibility

For even greater flexibility the KF 3 folder can be fitted with various optional features, eg a quarterfold facility as a chopper fold, a second parallel cross fold, cross and length perforators, ribbon and section stitchers and gluing and/or softening units.



KF 3B jaw folder (with extras)

- 1 Former
- 2 Driven draw rollers
- 3 Length perforator (optional)
- 4 Cross perforator (optional)
- 5 Draw-roller motor
- 6 AC drive
- 7 Section stitcher (optional)
- 8 2:3:3 cylinder assembly
- 9 Quarterfold (optional)



Just-in-time reel feed

Efficient paper logistics

The Comet, like all KBA presses, can be integrated in a Patras reel-handling system. The standard type of reelstand is the KBA Pastoline.

Patras reel-handling system

Our Patras paper transport system (see separate brochure) is module-based to support a wide range of versions from manual (with transfer table, rails and reel truck) to fully automatic, so it can be custom-configured to suit individual production specifications and the space available. The automated version, Patras A, is configured with a KBA Pastomat C reelstand and KBA EcoSplice automatic splice preparation station.

Pastoline high-tech reelstand

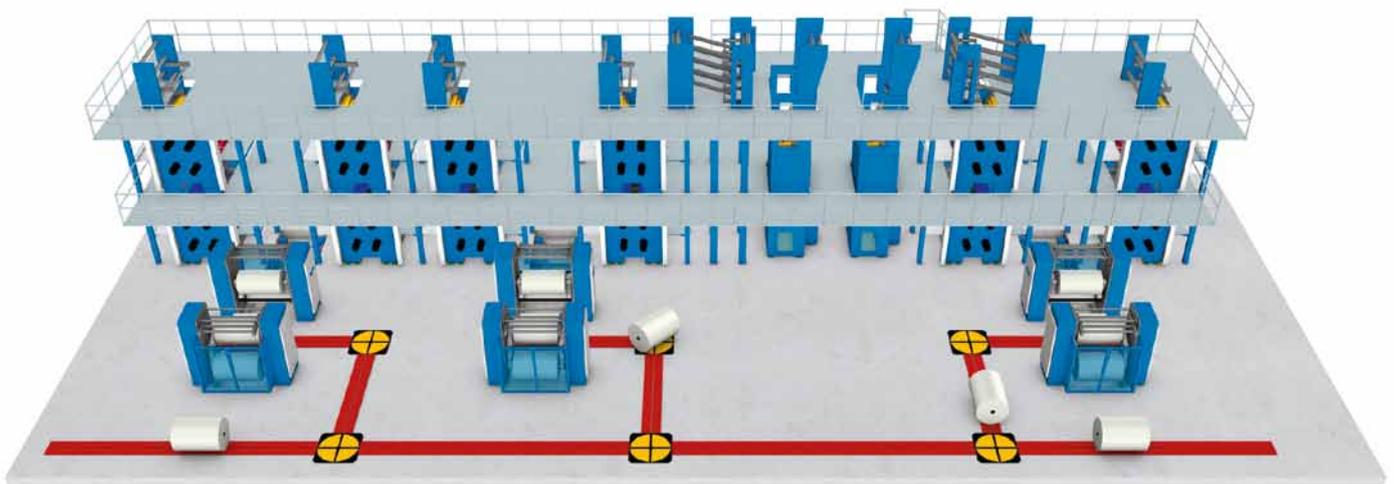
Our user-friendly Pastoline automatic reelstand features AC drives, an electric braking system and divided arms. It is engineered for a maximum web speed of 13mps (2,560fpm). The arms on the standard version can be adjusted electrically in increments of one millimetre (0.039in). They can accept reels up to 1,270mm (50in) wide and weighing 1.6t (3,527lbs). To facilitate handling, the controls for the Pastoline are fully embedded in the console system.



Optional extras include a webbing-up chain for automatic web infeed. Special features such as pre-splice edge alignment

between the new and the expiring web make the Pastoline suitable for semi-commercial production as well.

The Pastoline reelstand features some useful options



The reelstands are positioned at a 90° angle to the press line and embedded in a Patras M manual logistics system





Shaftless drives

KBA DriveTronic

The shaftless drive system for the Comet, with a dedicated AC motor for each printing couple, represents the current state of the art and offers substantial advantages in terms of handling, flexibility, makereadies, web tension, print quality and waste.

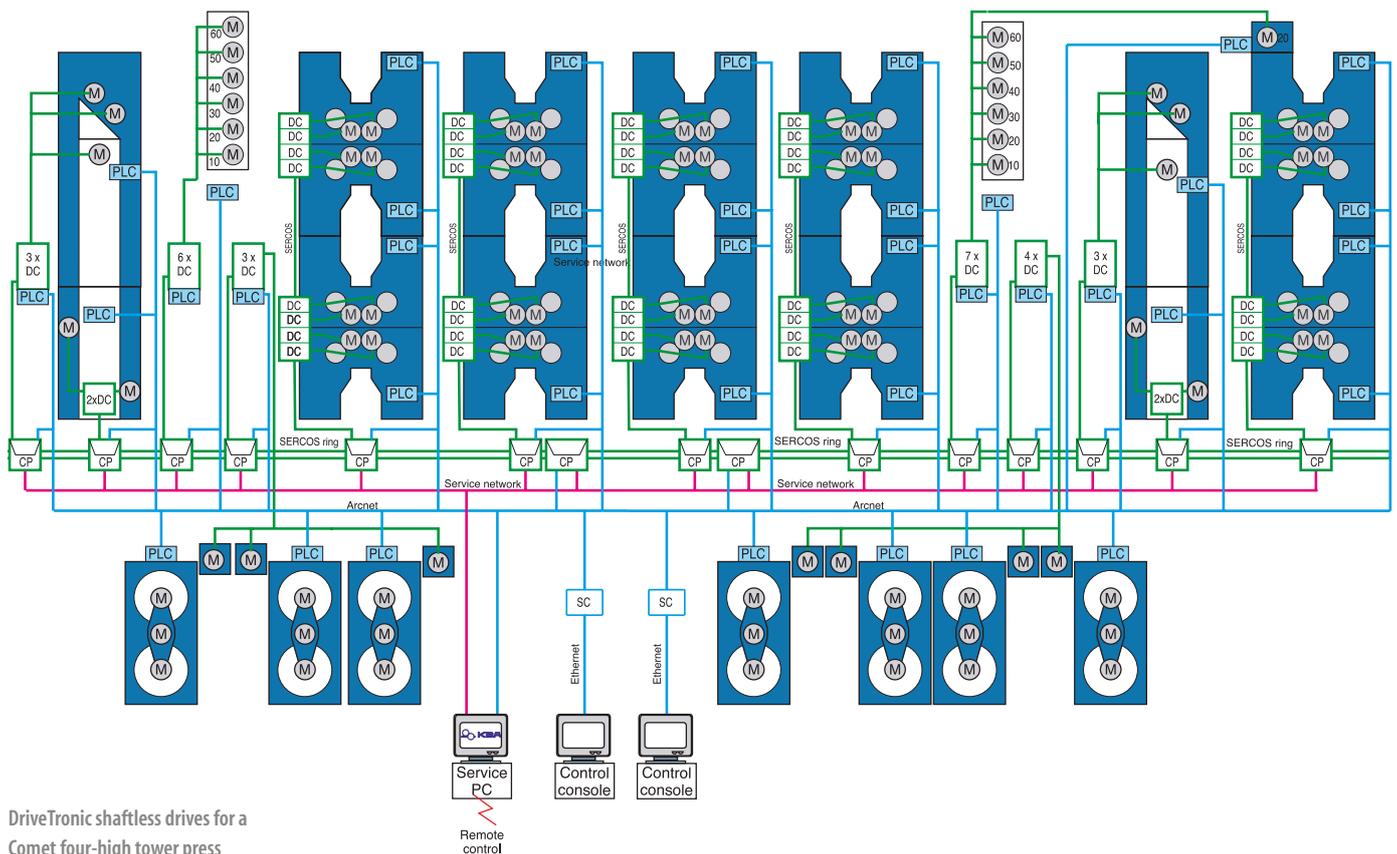
Practice-proven

KBA is the global market leader in shaftless drives, with DriveTronic systems in operation on thousands of newspaper and commercial printing couples worldwide. The AC motors and controllers installed as standard have proven their outstanding performance and reliability a million times over in day-to-day production.

they also help reduce energy consumption and commissioning times, facilitate retrofits and extensions, ensure a quiet, vibration-free machine run and eliminate the need for maintenance-intensive clutches and gears.

Totally shaftless

Low-maintenance shaftless AC drives feature throughout the press – for the infeed units, draw rollers in the superstructure and for the folder. Alongside the benefits mentioned above



DriveTronic shaftless drives for a Comet four-high tower press

Easy operation

Customised automation

Distributed electrical and electronic components at subassembly level, plus a host of optional automation modules, allow the Comet to be custom-configured to suit individual specifications with regard to press handling, control and presetting.

The automation system is a three-level hierarchy comprising:

- Press controls
- Console level with operating and data systems
- Process level incorporating a production management system, ie production planning, press presetting and control.

Press controls

The reelstands, printing units and folders are controlled via distributed processing stations in the relevant subassemblies. The processing stations are linked to each other, to the press section computer and to the console by high-powered data bus systems. At-a-glance control panels directly at the printing units and folders, plus a mobile, plug-in control station for all offset functions, ease operation and cut response times.

Console level

The automated press functions can be initiated, controlled and monitored from ergonomically designed, height-adjustable KBA ErgoTronic consoles featuring process-oriented graphical user interfaces and clear, colour data screens.

The standard version of the Comet is product-oriented, ie each broadsheet page is automatically assigned to the relevant printing couple(s). If the ink or dampening is changed the operator merely has to key in the relevant page and the new colour. Direct page selection makes handling much easier and saves time and waste. Depending on the sophistication of the equipment specified, the main data screens can be augmented by auxiliary screens for additional aggregates, and production data stored at the console for repeat jobs.



Production scheduling and press presetting are much easier with our KBA PressNet option

Process level

The console system can, as an option, be expanded with a suite of software modules for production scheduling, press presetting and control to support customised automation. In addition, data can be exchanged directly with other company departments (management information system).

Ink profile preset via RIP interface or scanner

As a further option the console architecture can support the import of standardised preset data. Digital data for presetting the ink keys can be exported online from pre-press via a RIP interface. This reduces start-up waste. A scanner for presetting the ink profiles can also be used.

Remote diagnostics and maintenance

Alongside the error-reporting and logging system embedded in the console, an optional remote diagnostics PC with a VPN connection furnishes a direct link to our service department or other systems provider, ensuring the rapid location of, and a swift response to, any malfunctions which may occur.

The production run is monitored and controlled from high-tech consoles



Heatset package for high-margin semi-commercial

The flexibility of the Comet architecture, and the broad raft of options it offers, enable high-grade coldset newspaper production to be combined with heatset semi-commercial production to enhance the level of press utilisation.

Semi-commercial production

In the growing market for short-lived products such as ad inserts, flyers etc, what counts most are fast delivery and an acceptable print quality at a low per-copy cost. To address this market the Comet can be configured with a heatset package including hot-air dryers. This not only enhances cost efficiency by increasing press utilisation but also expands the product spectrum for contract work and enables semi-commercial or selected commercials to be printed in-house alongside newspapers. The results to date have been very good, particularly on matt, coated, SC and LWC stock weighing up to 90gsm (57.75lbs).

Depending on the job to be printed, the special version recommended for printing quality semi-commercial can include the following features:

- sidelay control before printing tower
- reinforced inking units with rider roller and/or additional forme roller
- ink-temperature control
- porcupine roller with web catcher
- hot-air dryer
- chill roller stand
- silicone unit
- sidelay control in superstructure
- stitchers



- gluing and softening devices
- length and cross perforators
- quarterfold and/or second parallel cross fold etc.

In practice it has been found that Comet four-high presses with heatset facilities deliver a high-quality print at a very favourable cost per copy. Users report that adding a heatset package has not only expanded production capacity but also

enhanced competitiveness and, in many instances, enabled them to substantially increase their market share and recoup their capital outlay much faster. Comet presses are also being used increasingly for coldset and heatset directory printing.

Two essentials for a good print quality are, of course, an efficient pre-press and the use of high-grade consumables (ink, paper etc).

Our in-depth expertise in commercial web offset (Compacta presses), and the stream of single- and double-width semi-commercial presses that have rolled off the KBA production line over the years, have given us an intimate knowledge of this technology, ensuring that prospective users receive qualified assistance in drawing up specifications for a new press.



The heatset package for semi-commercial production includes hot-air dryers and chill roller stands

KBA Comet

At a glance

Specifications	
Maximum web width:	1,000mm (39.37in)
Cylinder circumferences:	1,000 - 1,400mm (39.37 - 55in)
Cut-off lengths:	500 - 700mm (19.68 - 27.56in)
standard:	500, 533.5, 546, 560, 578, 598.5, 630, 700mm (19.68, 21, 21.5, 22, 22.75, 23.56, 24.8, 27.56in)
	Special formats on request
Maximum output*:	75,000cph non-collect
Printing units:	partial or complete H-type with 2 - 4 printing couples tower with up to 8 printing couples undershot film inking units
Shaftless drives:	KBA DriveTronic with one dedicated AC drive per couple
Advanced level of automation with cutting-edge technology	
Options:	
Semi-commercial package with heatset dryer	
KBA Pastoline reelstand	
Maximum reel diameter:	1,270mm (50in)
Maximum splicing speed:	13mps (2,560fpm)
KBA KF 3B / KF 3 folder	
2:3:3 cylinder ratio	
Maximum output collect:	80 broadsheet pages, 160 tabloid pages
* depending on format	



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KBA Comet
from Koenig & Bauer AG

For further information please
contact our sales department at:
Koenig & Bauer AG
Würzburg Facility
Postfach 60 60
97010 Würzburg, Germany
Friedrich-Koenig-Str. 4
97080 Würzburg, Germany
Tel: (+49) 931 909-0
Fax: (+49) 931 909-4101
kba-wuerzburg@kba.com
www.kba.com

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