



KBA Pastomat

High-tech reelstand for integrated paper logistics
in digital, commercial and newspaper printing



The KBA Pastomat CL high-performance reelstand allows new width dimensions of up to 2.80m in digital printing

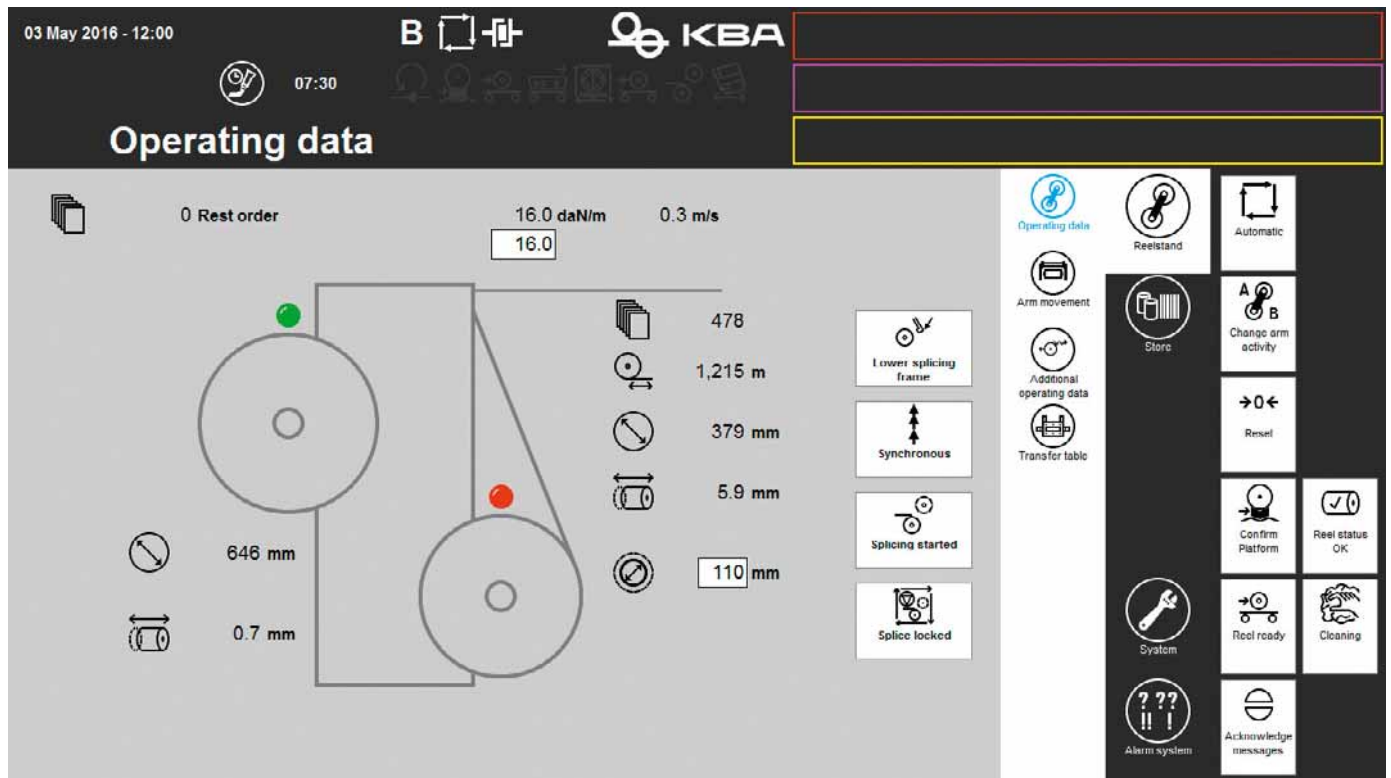
Cutting edge technology ... for reel weights of 6 t

As a means to maximise cost-effectiveness, productivity and flexibility, more and more newspaper and commercial printers are installing press lines configured for wider and variable web widths. Digital printing is pushing ahead with widths of up to 2.80m. In many cases, it is also economically expedient to choose paper reels with a larger diameter. An increase in reel diameter from 1,270 to 1,524mm, for example, enables the number of reels to be reduced by a third, with corresponding savings in respect of handling costs, manning requirements and white waste. The KBA Pastomat C and KBA Pastomat CL are the two principal variants of a reelstand already well renowned for its reliability.

The Classic version, Pastomat C, is a two-armed reelstand engineered for web speeds of up to 17.2m/s, and accepts reels weighing up to 2.2 tonnes, with a maximum diameter of 1,270mm and for web widths up to 1,760mm. For faster or wider digital, newspaper presses and for high-volume commercial presses with web speeds up to 17.2m/s, KBA also supplies the high-performance automatic reelstand KBA Pastomat CL (CL stands for Classic Large). This reelstand is capable of handling reels with diameters up to 1,524mm and a maximum width of 2,800mm. 3, 4 and 6 inch chucks can be provided to suit individual requirements.

Reliability plus production flexibility

Key highlights of the KBA reelstand are the central driving and braking of the reels via robust AC servo motors with energy recovery, and the provisions for full integration into the operating concept of the press itself. The divided arms are infinitely adjustable by way of electric motors and can thus accept reels of different widths to facilitate varying page counts. This not only affords tremendous flexibility, but also minimises changeover times during production. Clearly arranged control panels with data displays make for easy handling. A rugged construction ensures safe and reliable operation at even the highest web speeds, while the



The arm rotation elements were engineered accordingly and the rigidity of the frame further increased to enable the KBA Pastomat CL to handle reels weighing up to 6 tonnes

low-maintenance design helps to reduce downtimes to a minimum.

The Pastomat reelstand can be integrated seamlessly into a KBA Patras A automated reel logistics system with automated reel supply and stub removal. KBA has already gathered numerous references with the most varied logistics solutions for reel handling. All the safety features comply both with the EN 1010 standard and with the safety regulations of the German trade associations.



Perfect changes whatever the web speed

The high splicing efficiency of the Pastomat reelstands guarantees reliable, automatic reel changes and an uninterrupted supply of paper to digital, newspaper and commercial presses even at high web speeds. Short reel tails and small reel stubs support waste minimisation.

Variable chucking

The reel chucks possess optimised expanding jaws to take up the reels, which can then each be shifted laterally by $\pm 20\text{mm}$ in unwinding mode. For manual setups, the reelstand arms can be rotated to the relevant chucking height with pushbutton control.

Fast web-ups

The web is fed in automatically either with webbing-up tapes or by a flexible chain web-up system. On commercial presses, the web infeed is configured as

a separate unit, whereas it is electrically and mechanically integrated into the reelstand for a newspaper press. It is mechanically integrated into the reelstand for digital presses and electrically into the press' control system.

Automatic or manual reel changes

An automatic reel change can be effected at any web speed, whether during acceleration, deceleration or at maximum production speed. The change is initiated when the expiring reel reaches a pre-specified diameter, based on paper thickness and web speed. During the automatic splicing process, the pasting roller and severer are actuated by a metal tag attached to the web, which at the same time triggers the waste diverter after the folder exit. Potential splicing misregistration can be minimised with an optional automatic lateral alignment

facility.

The drive system even allows a new web to be spliced onto a full reel without stopping production, for example to replace a faulty reel.

Centralised AC drive

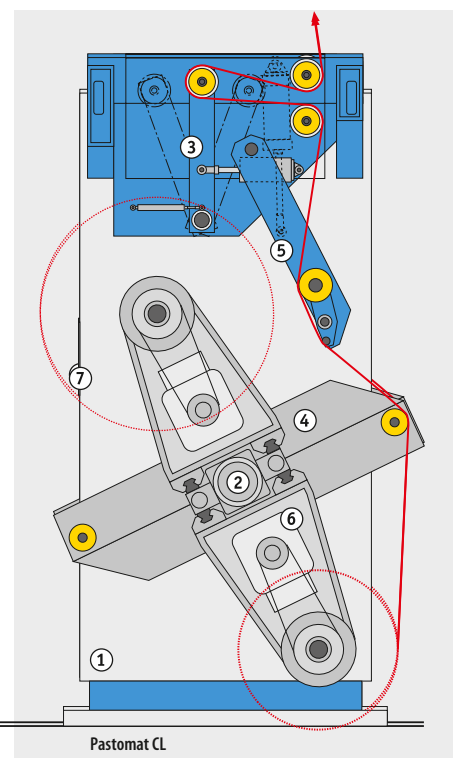
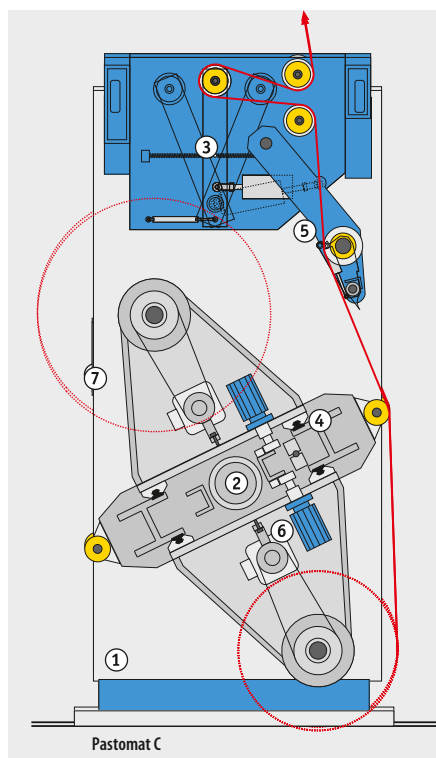
Heavy-duty AC motors in the reelstand arms drive and brake the reels via the chuck. If necessary, auxiliary electromagnetic brakes also engage on both the chucks. Arm adjustment, lateral reel adjustment and the chucking movement are controlled via AC drive axes integrated into each arm. The braking energy generated during operation is utilised via an energy recovery facility, substantially reducing energy costs, while the lifelong-lubricated bearings and brushless AC drives reduce maintenance tasks. Thanks to the AC drives, a uniform web tension is maintained in all operating states.



Comfortable operation at de-central displays

Functional elements of KBA Pastomat C and KBA Pastomat CL

- 1 Two-armed reelstand with central drive
- 2 Rotating arm drive with AC gear motor
- 3 Dancing roller with pneumatic load regulation and weight compensation to ensure a uniform web tension
- 4 Electric drive for lateral reel adjustment via the reelstand arms
- 5 Pivoting frame with splice recognition, pasting roller and severer to splice the new reel onto the expiring web
- 6 AC drive to accelerate the new reel and regulate web tension
- 7 Control components built into the side frame. PC with colour display to visualise operational data and for manual operation of the reelstand





Focus on convenience

Integrated workflows

The automatic Pastomat reelstands, with their clearly arranged decentralised operator displays, are fully embedded in the control console concept of the individual press, and as an option can also be linked to a production management system.

All important operational data pertaining to the reelstand (remaining reel diameter, web tension, countdown to the next splice, etc.) can be displayed for monitoring on clearly laid-out console

screens. All completed functions, such as reel changes, are logged.

In semi-automatic mode, all essential reel-change commands can be entered at the control panels incorporated into the side frames of the KBA Pastomat. An overview of current operational data is provided according to specifications. Parameters and status messages can be displayed.

Accessories for every eventuality

Optional equipment for the KBA Pastomat includes a diagnostics system with a facility for evaluating operational data, a system for logging reel data, and a modem link for remote diagnostics and service.



All important reelstand operating states can be monitored at the press control console via clear display screens





Automated reel logistics saves time and money

Just-in-time reel supply

Integrated logistics

Streamlining the paper flow, from reel reception and storage to on-demand transfer to the reelstand, reel loading and stub removal, is fast becoming a key economic factor in printshop calculations.

KBA Patras reel-handling system

The flexible KBA Patras paper transport system (see separate brochure) is module-based to support a wide range of versions from manual or automatic reel loading, with transfer table, rails and reel truck, to a complete integrated reel logistics system, enabling it to be planned and custom-configured to suit individual production scenarios and plant architecture. At the highest level of automation, the new reels are unloaded from the delivery trucks, stored,

prepared for splicing and loaded onto the reelstands, and the expired reels removed, with virtually no manual intervention. With KBA Patras A, reel logistics from delivery to expiry are embedded in the networked production flow, bringing substantial savings in time and waste, and therefore in costs.

KBA stripping station

Foot-operated controls and driven rollers for raising the reel to the required height enable the wrapping to be removed quickly and with a minimum of waste. The weight of the reel prior to and after stripping, slab waste removal and splice preparation can be logged for internal evaluation purposes.

KBA Eco Splice

This is an automatic splice-preparation unit engineered for a rapid throughput. Automatic splice preparation and reel changing enhance production efficiency and ease of handling by eliminating potential operator errors and cutting preparation times.



Stripping station with weighing device

Enhanced productivity and security with the KBA Eco Splice
automatic splice-preparation unit





KBA Pastomat on a 2.8m wide inkjet web press for the corrugated packaging market

KBA Pastomat CL on a newspaper press

The highly automated KBA Pastomat has been engineered for web speeds up to 17.2 m/s. As production demands often vary significantly from one print company to another, not least with regard to running speeds, web widths and reel weights, KBA offers its reelstands in a Classic and a Classic Large version. Common to both variants is an outstanding price-performance ratio. With its minimum maintenance requirements, absolute reliability and easy handling, the high-tech KBA Pastomat redefines the standard for the reelstand market. It can be integrated freely into a reel logistics system, and reel loading and stub removal can also be automated at a later date.



KBA Pastomat

At a glance

	KBA Pastomat C	KBA Pastomat CL	KBA Pastomat CL for digital printing
Reel acceleration/braking:	AC drive via reel chuck	AC drive via reel chuck	AC drive via reel chuck
Voltage:	3 x 400 V (50 Hz)	3 x 400 V (50 Hz)	3 x 400 V (50 Hz)
Splicing speed:	max. 17.2m/s (3,386ft/s)	max. 17.2m/s (3,386ft/s)	max. 5.1m/s (16.7ft/s)
Reel weight:	max. 2.2t	2.2–6.0t	max. 4.5t
Reel diameter:	max. 1,270mm / 50in min. 450mm / 17.75in (auto. splicing)	max. 1,524mm / 60in min. 450–500mm / 17.75–19.7in (auto. splicing)	max. 1,524mm / 60in min. 500mm / 19.7in (for auto. splicing)
Reel-stub diameter:	min. 110mm / 4.25in	min. 110–190mm / 4.25–7.5in	min. 125–190mm / 4.9–7.4in
Web width:	1,280, 1,760mm / 50.5, 69.3in	1,280, 1,760, 2,100, 2,520mm / 50.5, 69.3, 82.5, 99.2in	2,520, 2,800mm / 99.2, 110.2in
Reel cores: (to IFRA specs)	76mm / 3in	76/150mm (3/6in)	76/150mm (3/6in)
Paper weights:	24–170gsm / 15–109lbs Option of up to 250gsm / 160lbs	24–170gsm / 15–109lbs Option of up to 250gsm / 160lbs	37–250gsm / 23.5–161lbs Option of up to 400gsm / 257lbs
Web tension:	15 dN/m	15 dN/m	15 dN/m
Lateral adjustment:	± 20mm / 0.75in	± 20mm / 0.75in	± 20mm / 0.75in
Weight:	approx. 7t	approx. 7.5–18t	18t
Height:	2,645mm / 104in	2,645–3,090mm / 104–121.5in	3,090mm / 121.6in
Options			
<ul style="list-style-type: none"> • Sidelay control / web centring via the reel • Country-specific electrical installation • Manual stripping station with or without weighing unit • Modem connection with service link for remote diagnostics 		<ul style="list-style-type: none"> • KBA Patras M manual reel-handling system • KBA Patras A automatic reel-handling system • Automatic splice preparation with KBA Eco Splice • Diagnostics system with evaluation of operational data • Barcode acquisition of reel data 	

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by Koenig & Bauer Group**

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