Rapida 76 – Automation redefined for the B2 format class
Rapida 76

With the Rapida 76, Koenig & Bauer has designed yet another highly efficient press suitable for the most varied applications. Proven technologies and new automation features combine to produce the most modern half-format press on the market. Its preset capabilities reduce job changeover times to an absolute minimum, while production speeds of up to 18,000 sheets/h raise profitability to new levels. Not only that – the press can be configured exactly the way you need for your individual job structure.

Half-format – full performance: The benchmark in B2 format
Packaging printers benefit from application-oriented configurations with up to eleven printing and finishing units. Equipment packages extend the already broad substrate range to include heavier boards or plastic films. Commercial printers, on the other hand, can choose a press with up to ten printing units, perfecting and an additional coating tower. In this way, five colours can be printed on both sides of the sheet, and the product can then even be finished on a single pass.

If you are one of those printers who have never been able to exploit the full output capacity of a medium-format press, but have always envied the automation convenience, the Rapida 76 is your ideal means of production. It pairs aesthetic design with the exceptional Koenig & Bauer DriveTronic dedicated drive technology. Those are the new benchmarks in B2 format. Experience the convincing superiority.
DriveTronic ease of operation: Smooth running for maximum output

The incorporation of state-of-the-art DriveTronic dedicated drive technology enables the feeder and infeed of the Rapida 76 to stand out above the crowd. Immediate benefits are exceptionally smooth running and sheet transport without the risk of marking. The sidelay-free infeed DriveTronic SIS, furthermore, is a feature unique to Koenig & Bauer presses – and well proven over many years of practical use. It provides for automatic, contact-free lateral alignment of the sheet, without operator intervention.
**Feeder and infeed**

**DriveTronic feeder**
- Feeder motions controlled via servo motors
- Automatic pile side edge control and pile lift adaptation by way of sensors
- Speed-dependent format and air settings, saved at the ErgoTronic console for later recall
- Non-stop pile changing based on individual rods or a fully automatic system (options)

**Feeder head**
- Lifting suckers, forwarding suckers and separator springs for reliable sheet separation and transport at speeds up to 18,000 sheets/h
- Side blowers to assist sheet separation when working with difficult substrates
- Rear-edge pile height sensing with automatic compensation of the feeder head height
- Antistatic loosening and separating air for reliable separation of the individual sheets

**Suction-belt feed table**
- Single central suction belt
- Stainless, antistatic structured surface
- Multi-chamber vacuum system for exact and reliable sheet transport into the infeed
- Electronically controlled sheet deceleration to ensure optimum sheet arrival at the front lays

**DriveTronic SIS (Sensoric Infeed System)**
- Electronically controlled lateral sheet alignment without the need for a side lay
- Integration into automatic format setting eliminates all need for operator intervention
- Gentle sheet positioning with the highest possible accuracy
- Venturi system before the feed line for smooth sheet infeed
- Pneumatic drive elements for precise positioning of the sheet, even at maximum speed

**Infeed**
- Central parallel and skew correction of the feed line
- Touchscreen display with direct function keys for reliable and intuitive press operation

**Sheet monitoring**
- Ultrasonic double-sheet detector, also for inhomogeneous materials
- Electronic multiple-sheet detector
- Optical skew-sheet and front lay sensors
- Electropneumatic overshoot blocking as protection against missing, skew and double sheets
Venturi sheet guiding: Perfect for every substrate

Characteristic for the printing units of the Rapida 76 is the low-curvature sheet travel over double-size impression cylinders and transfer systems. An ingenious Venturi sheet guiding system carries the sheets from one printing unit to the next, with no worries about marking or scratching. The substrate you are using makes no difference – whether lightweight paper or heavier board.

**Design principle**
- Unit design
- Double-size impression cylinders and transfer systems for reliable sheet travel with the most varied substrates
- 7 o’clock cylinder arrangement
- Side frames joined with robust crossbeams
- Continuous gear train for smooth running and precision
- Corrosion-free coating of cylinder surfaces
- Precise rolling between plate and blanket cylinders thanks to play-free bearings and bearer contact
- Central lubrication

**Sheet travel**
- Gentle, air-cushioned sheet travel with blower systems and Venturi guide plates
- Automatic setting of the substrate thickness
- Pneumatic impression on/off switching

**Universal gripper systems**
- No settings required when switching to a different substrate thickness
- Hardened gripper tips and finely structured gripper pads for maximum holding forces
- Gripper pads and tips can be replaced individually
- Increased gripper shaft diameter

**Register setting**
- Mechatronic remote setting of lateral, circumferential and diagonal register from the ErgoTronic console
- Diagonal register adjustment achieved by tilting the transfer drums
- ErgoTronic ACR (Automatic Camera Register Control) for automatic measurement and control based on individual sheets using a separate video magnifier

**Perfecting**
- Three-drum perfecting unit with double-size systems to accommodate a broad spectrum of substrates
- High register stability
- Special gripper system to keep the rear edge of the sheet tight
- Fully automatic mode conversion completed in a maximum of 2 minutes
- Jackets on the impression cylinders and removable drum shells with an ink-repellent surface on the transfer drums for marking-free sheet travel after perfecting
- Gentle sheet guiding based on blower air
- Delivery with dynamic sheet brake comprising pre-suction wheels and suction modules (suction widths to suit different requirements)
Dynamic colour: Fast-reacting and efficient
High-performance sheetfed offset calls for stable and fast-reacting inking units – just like those of the Rapida 76. A single ink train for efficient heat dissipation, dynamic inking control and the same proven ColorTronic ink ducts which are used in all other Rapida presses are features which add up to an inking unit worthy of a format class leader. Furthermore, individual inking units can simply be left standing still if they are not required for a particular job.

Automation solutions such as fully automatic FAPC and SPC plate changers and washing systems capable of parallel operation minimise makeready times. The Rapida 76 is back to printing in a matter of minutes. And you can make the most effective use of your production time.

**ColorTronic ink duct**
- Flexurally rigid, ceramic-coated ink duct roller
- Ink duct roller speed compensated to the press speed to ensure constant ink transfer
- Wear-free ink metering with 25 carbide-tipped ink keys
- Dynamic inking control for fastest possible reaction
- Ink duct foil can be used to facilitate fast ink changes

**Inking unit**
- Fast-reacting single-train inking unit, with optional temperature control for the oscillating cylinders
- Ink vibrator frequency controlled from the ErgoTronic console in 5 steps
- Oscillation timing adjustment from the ErgoTronic console
- Manual activation/deactivation of ink forme roller oscillation for an even, ghosting-free print result
- Automatic disengaging of unused inking units from the ErgoTronic console (option)

**Dampening unit**
- Speed-compensated film-type dampening unit for a stable ink-water balance
- Skewing of the dampening pan roller to adapt dampening solution distribution over the format width
- Oscillating bridge roller in contact with the ink forme roller for ghosting-free print and high inking stability
- Differential drive controlled from the ErgoTronic console to eliminate hiccups (option)
- Additional chrome rider roller – fixed or oscillating (option)

**Plate change**
- Fully automatic plate change system FAPC
- Automatic plate removal, mounting, clamping and tensioning
- Change time less than 50 seconds per printing unit
- Simultaneous plate change
  - DriveTronic SPC: Change time approx. 40 seconds (whole press)

**Washing systems**
- CleanTronic roller washing system
- CleanTronic cloth-based cylinder washing system for blankets and impression cylinders
- Quick-release fittings for fast washing beam removal without tools
- Individual adaptation of washing programs to different substrates
- Washing program selection and solvent/cloth consumption display at the ErgoTronic console
- CleanTronic Synchro: Parallel blanket and impression cylinder washing with two washing beams for even faster makeready (washing at 7,000 sheets/h); optionally also roller washing
- CleanTronic Multi: Washing system for alternating ink systems (UV/conventional) with two separate solvent circuits and one water circuit
- CleanTronic UV: Washing system for UV applications, with safety functions to eliminate waiting times before and after washing
Shining results through diverse possibilities for inline finishing

When it comes to inline finishing, the Rapida 76 leaves practically no wish unanswered. Single and multiple coatings, gloss and matt effects, all-over and spot finishes – the choice is yours.

Presses with two coaters and intermediate dryer units are the icing on the cake with regard to quality and gloss levels. Perfector presses with an additional coater optimise the production of covers.

**Chamber blade system**
- Hydropneumatic chamber control for constant and even coating application
- Lightweight anilox roller
- HydroComp™ blade pressure control ensures maximum blade life
- Quick-release locking mechanism for fast and simple anilox roller exchange

**Coating forme cylinder**
- Coating forme cylinder with quick-action clamps and register pin system for exact positioning of the coating forme
- Use of flexible photopolymer or aluminium-based coating formes
- Automated coating forme change (SAPC)
- Remote adjustment of lateral, circumferential and diagonal register from the ErgoTronic console

**Coating supply**
- Choice of simple or automatic coating supply systems for dispersion and UV coatings
- Switch between dispersion and UV coatings in approx. 15 or 6 minutes, depending on system variant chosen
- Simple coating change in 1 to 2 minutes
- All further makeready processes run parallel to cleaning of the coating circuit
- Both systems controlled from the ErgoTronic console
Rapida 76: Benchmark in B2 format
**Console and measuring systems**

- **ErgoTronic console with TouchTronic control**
- **ErgoTronic ACR** (Automatic Camera Register) – Option: ErgoTronic ImageZoom (video magnifier)
- **ErgoTronic ColorDrive** (online density measurement) – Options: ErgoTronic Lab, ErgoTronic QualityPass, ErgoTronic Instrument Flight, ErgoTronic PSO Match
- **ErgoTronic ColorControl** (online density measurement) – Options: ErgoTronic Lab, ErgoTronic QualityPass, ErgoTronic Instrument Flight, ErgoTronic PSO Match
- **QualiTronic ColorControl** (inline density measurement) – Options: QualiTronic QualityPass, QualiTronic DotView, QualiTronic ColorView, QualiTronic Instrument Flight, QualiTronic PSO Match

**Delivery**

- High-level delivery for smooth sheet transport
- Reliable and marking-free sheet transport by way of an air cushion
- Automatic adjustment of the air volume at the Venturi nozzles to the printing speed and substrate properties
- Dynamic sheet brake comprising three suction modules with presuction wheels
- Automatic non-stop roller rack for uninterrupted production
- Delivery extension by 712 mm (ALV2) or 1,423 mm (ALV3)
- EES (Emission Extraction System)
Dryers
- VariDry® IR/hot air
- VariDry UV
- VariDry HR-UV
- VariDry LED-UV
- VariDry® IR/hot air/UV

Coater
- Chamber blade system with hydropneumatic chamber control
- Lightweight anilox roller
- Coating forme cylinder with quick-action clamps and register pin system for exact positioning of the coating forme
- Automated coating forme change (SAPC)
- Different coating supply systems, controlled via the ErgoTronic console
- Register setting from the ErgoTronic console

Plate change
- Fully automatic plate change system FAPC
- Change time less than 50 seconds per printing unit
- Simultaneous plate change DriveTronic SPC: Change time approx. 45 seconds (whole press)
**Printing unit**
- Double-size impression cylinders and transfer systems for reliable sheet travel with the most varied substrates
- Gentle, air-cushioned sheet travel with blower systems and Venturi guide plates
- Universal gripper systems: No settings required when switching to a different substrate thickness
- Automatic setting of the substrate thickness
- Pneumatic impression on/off switching
- Mechatronic remote setting of lateral, circumferential and diagonal register from the ErgoTronic console
- Board-handling package for substrates up to 0.8 mm thickness
- Sheet travel sensors

**Dampening unit**
- Speed-compensated film-type dampening unit for a stable ink-water balance
- Roller coating for low-alcohol printing
- Differential drive controlled from the ErgoTronic console to eliminate hickies (option)
- Additional chrome rider roller (fixed/oscillating)

**Inking unit**
- ColorTronic ink ducts
- Fast-reacting single-train inking unit
- Automatic disengaging of unused inking units
- Inking unit temperature control
- Accessories for rainbow printing
- Ink supply system
**DriveTronic SIS**
- Electronically controlled lateral sheet alignment without the need for a side lay
- Integration into automatic format setting eliminates all need for operator intervention
- Gentle sheet positioning with the highest possible accuracy
- Venturi system before the feed line for smooth sheet infeed
- Pneumatic drive elements for precise positioning of the sheet, even at maximum speed

**DriveTronic feeder**
- Feeder motions controlled via servo motors
- Automatic pile side edge control and pile lift adaptation by way of sensors
- Speed-dependent format and air settings, saved at the ErgoTronic console for later recall
- Non-stop pile changing based on individual rods or a fully automatic system (options)

**General**
- HighSpeed equipment package (up to 18,000 sheets/h)
- Board-handling equipment package (CX)
- Equipment package for lightweight substrates
- Equipment package for plastic films
- Equipment package “Touch-Free Guidance”
- Antistatic equipment packages
- UV/mixed operation
- Anilox coater with chamber blade
- Perfecting
- Extended deliveries
- Raised press foundations
- Double coating
- Dryer units
VariDry dryer technology: Energy-saving and environment-friendly

The range of VariDry dryer systems for intermediate and final drying is as broad as the spectrum of finishing possibilities.
Alongside classic IR/hot-air dryers, modern UV, HR-UV and LED-UV systems are also available. Common to all variants is the modular system design and their perfect matching to sheet travel in the press.

**VariDry**<sup>®</sup> *IR/hot air*
- Recirculation of the warmed but only partially saturated drying air from the swan neck reduces heating energy input
- Energy savings and lower CO₂ emissions thanks to efficient energy utilisation
- Additional IR lamp and additional air knife compared to Rapida 75 PRO

**VariDry UV**
- Stepless control up to maximum output
- Use of electronic ballasts for shorter warm-up/cooling times
- Operating hours counter for each module
- Lamp replacement without tools

**VariDry HR-UV**
- Use of iron-doped lamps
- A single module is sufficient to cure up to five colours printed wet-in-wet
- Low energy consumption
- No ozone
- Minimal powder application
- Immediate further processing

**VariDry LED-UV**
- Use of LED-UV lamps with long service life
- LEDs switched off automatically in accordance with the format width and length
- No warm-up and standby phases
- Lowest energy consumption
- Mercury-free
- No ozone
- No odours or heat input into the substrate
- Minimal powder application
- Immediate further processing

**VariDry**<sup>®</sup> *IR/hot air/UV*
- Combination of infrared, hot-air and UV drying in a three-section extended delivery for flexible mixed operation with conventional and UV systems
With a dynamic sheet brake, motorised positioning of the suction modules and Venturi sheet guide plates, the AirTronic delivery incorporates everything you need for marking-free sheet transport at all production speeds.
ErgoTronic console technology: New and simple operating philosophy

Thanks to comprehensive console and preset capabilities, alongside an ergonomically arranged and intuitive user interface, work on the Rapida 76 is child’s play. All operating functions are clearly structured for process-oriented access via the modern touchscreen monitor.

Additional touchpanels with direct function keys help to maximise operator convenience at the feeder and delivery – directly on the press itself. The Rapida 76 also possesses tailored workflow components for integration into company-wide production control and management systems.

ErgoTronic
• Wallscreen for visualisation of all press settings
• Live image from QualiTronic ColorControl on wallscreen
• ColorTronic ink metering with ink profile displays on console
• Integration with existing DensiTronic Professional possible
• Sheet inspection desk with adjustable desk angle
• Motorised console height adjustment with memory function
• USB port for fast communication of job data
• Uninterruptible power supply to enable controlled press shutdown in case of power supply failure
• Integrated remote maintenance module with Internet link for remote maintenance and software updates
Workflow management

Control console functions (dependent on incorporated options)
• Job changeover program JobAccess for automatic job presetting
• Job-specific saving of all relevant press parameters for repeat jobs
• Remote register setting
• Control for all peripheral equipment
• Maintenance indicator and print-outs of maintenance lists
• Unbroken production data acquisition in conjunction with LogoTronic Professional
• Creation and printing of pile docket
• Preview images

TouchTronic operating functions
• Touchscreen for intuitive access to all press functions
• Less start-up waste thanks to new functions to establish ink profiles
• All operating functions accessible with no more than two clicks
• Job list with preview images and functions for job order optimisation based on ink coverage data
• Uncomplicated handling of spot colours

Job changeover program JobAccess
• Preparation of the next job while production is still running
• Makeready savings up to 50%
• Automatic execution of all preselected makeready processes in time-optimised order
• Presetting of format and substrate thickness
• Presetting of all substrate-specific air settings
• Job-specific presetting of ColorTronic ink metering
• Preselection and activation of washing functions

Specials/process automation
ErgoTronic AutoRun
• Autonomous execution of a prepared job list (especially in commercial printing)
• Makeready tasks, production, and colour and register control run automatically as elements of a single integrated process
• Sheet counter is started automatically when the target colour densities are attained
• Operators simply monitor the process sequence and are relieved of routine tasks

ErgoTronic console with integrated measuring systems
• In addition to the standard ErgoTronic features
• Sheet inspection desk as vacuum board with fixed desk angle
• ErgoTronic ColorDrive or ErgoTronic Color-Control for density and Lab measurements

CIPLink
• Ink profile presetting via CIP3 data

LogoTronic Professional
• Comprehensive management system
• CIP3/CIP4 interface to prepress
• JDF/JMF or XML interface to an MIS
• Order management
• Press presetting
• Master data, including central ink database
• PressWatch for graphic representation of the overall production process
• SpeedWatch for graphic representation of job progress
• Automatic saving and management of all quality reports

Rapida LiveApps
• Mobile console with press status information, consumables tracking (option), maintenance manager and PressCall
• Calculation and display of current energy consumption via an optional metering function
• Determination of carbon footprints
• Inventory management and consumables monitoring
Koenig & Bauer offers a broad spectrum of services addressing all aspects of your sheetfed offset press, founded on the three main pillars “Service Select”, “Service Complete” and “Press Consum”.
“Service Select” refers to services which are directly connected with the technology and equipment of your press. The prime objectives are to avoid downtimes and to maximise availability – as the basis for ultimate performance. Whether reactive service in an emergency case or preventive measures to avert the risk of damage: Swift processing of your calls holds top priority and is handled by our professional remote maintenance service. If it is necessary to replace any press component, our efficient spare parts supply system ensures that deliveries reach you as quickly as possible. And to prevent such emergencies arising in the first place, we offer you a range of preventive maintenance inspections, as well as corresponding retrofits and upgrades for both hardware and software. “Service Select” provides a suitable solution for all your technical needs.

“Service Complete” comprises services which are designed to safeguard and improve your productivity. Analyses and optimisation measures ensure that your press continues to print with maximum performance and at maximum capacity. Performance capabilities are documented to enable you to intervene before a trend reversal actually takes effect. In addition, “Service Complete” supports the assessment and consequent improvement of your production processes, right through to planning of overall print company structures. Alongside press and process optimisation, we offer opportunities for further training of your personnel by our experienced instructors. That, too, is a means to optimise press operation. Wherever the potential lies, the “Service Complete” programme is your versatile key to improvement, development and increased efficiency.

Suitable consumables are a decisive prerequisite for optimum use of your sheetfed offset press. High-quality inks provide for brilliant print results, and with the best cleaning solvents, your press remains in top condition. Waste, for example, can be reduced significantly. But you must usually obtain all these different consumables from a multitude of individual suppliers. To help you with your purchase decisions, we have tested the quality and performance of various products from renowned consumables suppliers. The ideal products for use on your high-performance Rapida press are recommended as part of our consumables programme.
## Rapida 76
### Technical data

<table>
<thead>
<tr>
<th>Sheet format</th>
<th>Maximum (standard / option)</th>
<th>530 x 750 / 605 x 750</th>
<th>mm</th>
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<tbody>
<tr>
<td>Minimum (straight / perfecting)</td>
<td>230 x 297 / 350 x 310</td>
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<table>
<thead>
<tr>
<th>Print format</th>
<th>Standard / option (straight printing)</th>
<th>520 x 740 / 585 x 740</th>
<th>mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfecting</td>
<td>510 x 740</td>
<td></td>
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</tbody>
</table>

| Substrates¹                  | Standard                              | 0.04 – 0.6             | mm  |
|------------------------------| With board-handling package           | 0.8                    |     |
|                              | With perfecting                       | 0.04 – 0.5             |     |

| Production speed²            | up to 8 printing units + coater       | 16,000             | sheets/h |
|------------------------------| up to 10 printing units + coater     | 13,000             | sheets/h |
|                              | Perfector press in perfecting mode    | 13,000             | sheets/h |
|                              | Press with HighSpeed package (optional) | 18,000             | sheets/h |

| Pile heights                | Feeder                                | 1,180                 | mm  |
|------------------------------| Delivery                              | 1,590                 |     |

| Plate and blanket dimensions | Plate size (standard / option)         | 605 x 750 / 660 x 750 | mm  |
|------------------------------| Standard copy line                     | 37.5                   |     |
|                              | Blanket size                           | 700 x 748             |     |

| Configurations               | up to 10 printing units with perfecting and additional coater | |

¹Printability is also influenced decisively by the flexural rigidity of the substrate
²Dependent on individual processing parameters, e.g. the inks and substrates used

The illustrations and descriptions may depict or refer in part to special versions and options. Subject to technical and design modifications. Country-specific variants may apply. More detailed information can be obtained from your local representative.
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