

KOENIG & BAUER

RotaJET



we're on it.

EN

Digital Printing of the Highest Class

The Koenig & Bauer RotaJET is a high-volume printing press for the most diverse applications. It enables our customers to set their sights on new, digital concepts. After all, the digital printing market is one of the most important growth segments in the entire printing industry, not only due to its flexibility, but also because it facilitates the transformation of business models.

The Koenig & Bauer RotaJET is a high-end printing press developed for industrial single-pass digital printing. The system enables the processing of a wide range of substrates. Guiding the web around a central cylinder allows absolute precision, consistent quality and ultimate stability.

The continuing trends towards individualisation and personalisation, alongside a constant demand for innovative designs that enhance brand value, count among the key drivers of digital transformation in the printing industry. Digital printing not only minimises time to market for our customers – it also offers exceptionally flexible options in terms of seasonal variations and product life cycles.

Marketing campaigns, special events, targeted promotions, track & trace and digital watermarks can all be implemented with ease. Further more, smart packaging creates new opportunities for direct communication with customers.

The Koenig & Bauer RotaJET is available for web widths from 770 to 2,250 mm. With an output of up to 36,450 m² per hour, it sets the benchmark for industrial digital printing. The modular design with the option of upgrades provides unique versatility and permits adaptation to the most varied fields of application in industrial and commercial printing.



Facts and Figures

The flexibility of the Koenig & Bauer RotaJET is characterized by these properties:

<p>Piezo printing head technology</p> <p>Fujifilm Dimatix Samba</p>	<p>Droplet size</p> <p>Variable</p>	<p>Print resolution</p> <p>1,200 dpi native</p>
<p>Printing mode</p> <p>Seamless print</p>	<p>Web width</p> <p>Max. 2,250 mm</p>	<p>Workflow</p> <p>Intelligent job management RotaNET</p>
<p>Paper weight</p> <p>30 – 400 g/m²</p>	<p>Printing speed</p> <p>Max. 270 m/min</p>	<p>Paper Path</p> <p>Central cylinder</p>



Digital printing with water-based inks is sustainable. The highly efficient production process means that there is hardly any waste in digital printing. Demand-oriented production reduces waste and resource consumption over the entire life cycle of a printed product.

Packaging

The trend towards ever greater diversification in the field of consumer goods poses significant challenges for brands and converters. Flying job changes enable highly efficient production of shorter runs, which also allow for personalised and special interest packaging. On the Koenig & Bauer RotaJET, the question of food safety is addressed not just in terms of the inks and other fluids, but for the press as a whole. Accordingly, it is also available in an optional version that meets H1 requirements.

Pre-coating	Flat coating application, anilox roller, one side Optional: flexo sleeve unit for spot pre-coating
Coating Unit	Optional: flat coating, also possible as a flexo sleeve unit for spot coating, for water-based and/or UV coatings Min./max. cut-off length: 490 – 840 mm or 640 – 1,450 mm (19.29" – 33" or 25.19" – 57")
Flexo Printing Unit	Hybrid option: flexo sleeve technology Min./max. cut-off length: 490 – 840 mm or 640 – 1,450 mm (19.29" – 33" or 25.19" – 57")
Workflow / Communication RIP Technology	RotaNET, web-based XML workflow, including PDF preflighting and correction possibilities, queue management and XML reporting with embedded Adobe RIP core
Web Width	Max. 2,250 mm (88.58")
Printing Width	Max. 2,243 mm (88.31")
Printing Speed	from 40 bis 135m/min (130 to 443ft/min) at 1,200x1,200dpi up to 270m/min (885ft/min) at 1,200 x 600dpi
Printing Mode / Ink	Highly pigmented CMYK, packaging-optimised H2O inks, formulated according to Swiss Ordinance and GMP requirements
Inline Further Processing	Rewinder with automatic reelstand, inline sheeter, embossing, creasing and die-cutting units according to customer needs

Inline Further Processing

- Inline sheeter, rewinder, embossing, creasing and die-cutting units according to customer needs

Patras

- Koenig & Bauer reel transport system
- Available in manual and automatic versions (Patras M or Patras A)
- Optional: reel supply from the main paper storage to the Koenig & Bauer RotaJET



Further Processing

- Rewinder with manual reel changing
- Optional: automatic reelstand with flying reel changes
- Optional: Patras reel logistics for automatic further handling and transport of the printed reels

Coating Unit(s)

- Choice of dispersion or UV coating units
- Flat coating
- Optional: flexo sleeve unit for spot coating
- Min./max. cut-off length: 490 – 840 mm or 640 – 1,450 mm

Dryers

- Max. energy efficiency through the combination of near-infrared (NIR) dryer modules and warm air circulation (wave modules)
- Intelligent dryer management for adaptation to individual web widths and substrate characteristics
- Integrated cooling system for straightforward and reliable inline further processing

Print Quality Management System PQMS

- Print quality inspection system in Basic and optional Advanced versions
- HD camera system covering the entire printing width
- Automatic banding compensation with tone value specification
- Nozzle detection
- Optional: PQMS Advanced with 100% inspection on the basis of a 'golden image', including the evaluation of predefined samples

Operator Console

- Central operator displays for production planning, press control, sub-systems and peripherals
- Intuitive touch panel control
- Production-specific report generation
- Optional: remote operation using a tablet

4/0 Inkjet Printing Unit

- Central cylinder for precisely defined web guiding and perfect registration
- 4 radially arranged inkjet arrays
- Two printing head rows per array for maximum performance
- 1,200 × 1,200 dpi for 135 m/min and 1,200 × 600 dpi for 270 m/min
- CMYK colour system with highly pigmented packaging inks for an extra-wide colour gamut

Pre-Coating Unit

- Homogeneous all-over application
- With dryer
- Pre-coating enables the use of standard papers
- Optional: flexo sleeve unit for spot pre-coating
- Coating length 640 – 1,450 mm
- Anilox roller / forme sleeve

Web Cleaning System

- Cleaning of the substrate surface on one or both sides
- With or without contact by way of a cleaning module with fan-and-filter unit
- Antistatic system

Unwinder with Automatic Web Infeed

- Manual unwinder or
- Optional: automatic reelstand with automatic splicing
- Integration of third-party reelstands possible

Application Examples

- Folding cartons
- Top liner lamination for corrugated products
- Beverage cartons
- Paper bags/pouches
- Wide range of paper weights
- Indoor and outdoor posters and signage



Decor

Digitally printed decors for flooring, furniture, wall and ceiling panels, kitchen plates and many more similar applications augment the range of products handled by the Koenig & Bauer RotaJET. The time to market is reduced for new designs and the production of existing decors becomes more flexible. Numerous new design options, such as decor lengths of 5600 mm, the highlighting of key details or colour gradations without repetition, are made possible by digital printing technology. Significantly faster makeready and excellent reproduction accuracy permit quantities from just a few hundred kilos to several tonnes to be printed, and thereby optimum synchronisation with other production processes. The constantly high print quality over the full width and length satisfies all quality demands. Incorporating 'invisible' background information, for example copyright details, copy protection features, watermarks or additional product data, couldn't be easier.



Pre-coating	One-sided flat coating application to enable the use of standard decor papers
Printing mode	Seamless print
Workflow / communication RIP technology	RotaNET, web-based XML workflow, including PDF preflighting and correction possibilities, queue management and XML reporting with embedded Adobe RIP core
Web width	Max. 2,250 mm (88.58")
Printing width	Max. 2,243 mm (88.31")
Printing speed	from 40 bis 135m/min (130 to 443ft/min) at 1,200x1,200dpi up to 270m/min (885ft/min) at 1,200 x 600dpi
Ink	CRYK for decor printing



Rewinder

- Rewinder with manual reel changing
- Optional: automatic reelstand with flying reel changes
- Optional: Patras reel logistics for automatic further handling and transport of the printed reels

Dryers

- Max. energy efficiency through the combination of near-infrared (NIR) dryer modules and warm air circulation (wave modules)
- Intelligent dryer management for adaptation to individual web widths and substrate characteristics
- Integrated cooling system for straightforward and reliable further processing

Print Quality Management System PQMS

- Print quality inspection system in Basic and optional Advanced versions
- HD camera system covering the entire printing width
- Automatic banding compensation with tone value specification
- Nozzle detection
- Optional: PQMS Advanced with 100% inspection on the basis of a 'golden image', including the evaluation of predefined samples

Operator console

- Central operator displays for production planning, press control, sub-systems and peripherals
- Intuitive touch panel control
- Production-specific report generation
- Optional: remote operation using a tablet

4/0 inkjet printing unit

- Central cylinder for precisely defined paper path and perfect registration
- 2 or 4 radially arranged inkjet arrays
- One or two printing head rows per array for maximum performance
- CRYK colour system for decor inks
- D65 standard illumination section for visual assessment by the operator after printing

Pre-coating unit

- Homogeneous all-over application
- With dryer
- Pre-coating enables the use of standard decor papers

Web cleaning system

- Cleaning of the substrate surface on one or both sides
- With or without contact by way of a cleaning module with fan-and-filter unit
- Antistatic system

Unwinder with automatic web infeed Patras

- Manual unwinder or
- Optional: automatic reelstand with automatic splicing

- Koenig & Bauer reel transport system
- available in manual and automatic versions (Patras M or Patras A)
- Optional: reel supply from the main paper storage to the Koenig & Bauer RotaJET

Application Examples

New design opportunities thanks to increased cut-off lengths.



Books

The Koenig & Bauer RotaJET cuts publishers' process and secondary costs (waste, capital commitment, etc.) and enables the efficient production of books and other publications for on-demand delivery. The risks that accompany new publications are reduced. At the same time, delivery capability is boosted, especially when it comes to backlist titles. Customer relationships are intensified, and the added efficiency of the Koenig & Bauer RotaJET is a perfect response to the challenges of the market. Cut-off lengths are variable. The same web widths as in offset production can be used, namely > 40" (1,016 mm) up to max. 66" (1,680 mm). The Koenig & Bauer Pre-Coating solution enables the usage of standard offset papers. Thus unifies paper stock and makes inkejt optimised media obsolete. The finishing processes are likewise identical to those already in place.

Pre-coating	Flat coating application on both sides to enable the use of less expensive standard book-printing papers
Printing mode	Seamless print
Grammages	28 – 175 g/m ²
Workflow / communication RIP technology	RotaNET, web-based XML workflow, including PDF preflighting and correction possibilities, queue management and XML reporting with embedded Adobe RIP core
Web width	Max. 1,680 mm (66.14")
Printing width	Max. 1,673 mm (65.87")
Printing speed	From 40 bis 135m/min (130 to 443ft/min) at 1,200x1,200dpi up to 270m/min (885ft/min) at 1,200 x 600dpi
Ink	1/1 or 4/4 CMYK

Inline further processing

- Integration of the most varied solutions is possible



Rewinder

- Rewinder with manual reel changing
- Optional: automatic reelstand with flying reel changes
- Optional: Patras reel logistics for automatic further handling and transport of the printed reels

Dryers

- Max. energy efficiency through the combination of near-infrared (NIR) dryer modules and warm air circulation (wave modules)
- Intelligent dryer management for adaptation to individual web widths and substrate characteristics
- Integrated cooling system for straightforward and reliable online further processing

Print Quality Management System PQMS

- Print quality inspection system in Basic and optional Advanced versions
- HD camera system covering the entire printing width
- Automatic banding compensation with tone value specification
- Nozzle detection
- Optional: PQMS Advanced with 100% inspection on the basis of a 'golden job', including the evaluation of predefined samples

Operator console

- Central operator displays for production planning, press control, sub-systems and peripherals
- Intuitive touch panel control
- Production-specific report generation
- Optional: remote operation using a tablet

1/1 or 4/4 inkjet printing unit

- Central cylinder for precisely defined web guiding and perfect registration, optimised for the processing of thin substrates
- 1 or 4 radially arranged inkjet arrays
- Two printing head rows per array for maximum performance
- 1200 × 1200 dpi for 135 m/min. and 1200 × 600 dpi for 270 m/min.

Pre-coating unit

- Homogeneous all-over application
- With dryer
- Pre-coating enables the use of standard offset papers

Web cleaning system

- Cleaning of the substrate surface on one or both sides
- With or without contact by way of a cleaning module with fan-and-filter unit
- Antistatic system

Unwinder with automatic web infeed Patras

- Manual unwinder or
- automatic reelstand with automatic splicing
- Koenig & Bauer reel transport system
- Available in manual and automatic versions (Patras M or Patras A), optional: reel supply from the main paper store to the Koenig & Bauer RotaJET

Application Examples

Highly efficient book production. Lightweight, standard and high-volume book papers can all be used. Medium to long digital printing runs.

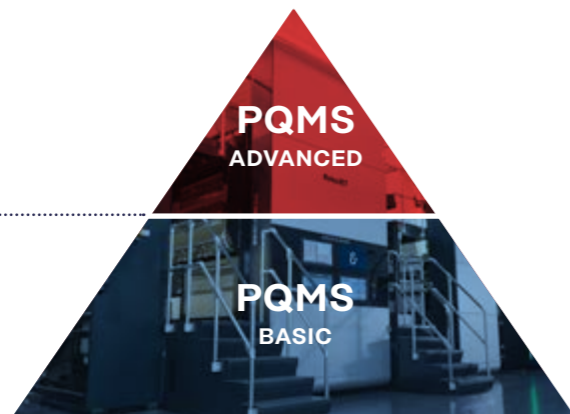


Workflow

Software solutions for a highly efficient workflow.

- Image Inspection

- Camera Hardware
- Software
- Stitching
- Banding Compensation

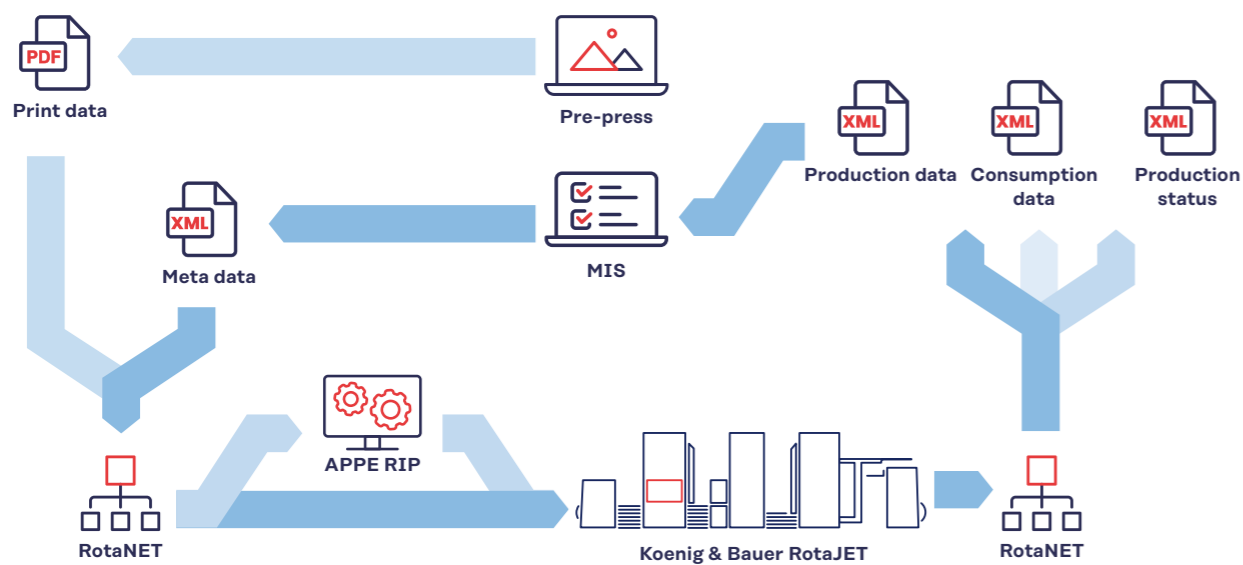


RotaNET



- **Interface** between the workflow environment and the Koenig & Bauer RotaJET
- **XML-based workflow** accepts job data such as substrate type, web width, run length and the units of the Koenig & Bauer RotaJET to be used
- Integrated PDF preflighting
- Scalable Adobe APPE RIP
- **PDF report** containing all specific production parameters, such as reel logs, ink consumption and print lengths
- Communication of **system status messages** from the Koenig & Bauer RotaJET by e-mail to a designated administrator or production control desk

PQMS – Print Quality Management System



- **PQMS Basic** version in every Koenig & Bauer RotaJET
- High-resolution camera systems
- **PQMS Banding Compensation** to smooth any potential fluctuations
- Optimum alignment of each printing head via the fully automatic **array control**
- Consistently **high print quality** – from job to job and from run to run
- **PQMS Advanced** for constant monitoring of the print quality on the basis of a 'golden image'
- Colour deviations, image defects and errors are recorded, displayed and documented
- Waste is reduced and the handling of downstream process steps is optimised

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