

KOENIG & BAUER

Rapida 106 X Rapida 106



we're on it.



A pioneer in industrial printing

Constant re-invention: the Rapida 106 is back in an exclusive, state-of-the-art design. With all-new, pioneering automation features, it will form the heart of the digitalisation of your printing company. Yet it will stay the same as it has always been: the innovative, market-leading product for high-performance medium format sheetfed offset printing.



The Rapida 106 is now available in two versions. The standard version already incorporates everything which defines the performance capabilities of the Rapida 106. The Rapida 106 X goes one step further with a host of additional features which enable you to experience the future of highly automated industrial printing today.

Any business involved in industrial printing where **optimum quality and performance matter** cannot deny the appeal of the Rapida 106 X / Rapida 106. Since the presses develop alongside your business success, you will be ready for any future developments. It will give you the freedom you need, and you can always be sure you're on the right page, with the right production equipment.

Whether for commercial or packaging printing, labels or any of the many special applications, the Rapida 106 X / Rapida 106 offers a **variety**

of configuration options and accessories to fulfil any printing requirement. And you can simply select the technical features that are most appropriate to your range of jobs, whether in terms of the number of printing and finishing jobs, automation modules, or solutions for inline quality control. Flexibility you can count on – virtually without limits.

State-of-the-art operating concepts based on touchscreens and apps make not only routine processes such as job changeovers, production and quality control a pleasure. A whole range of additional functions will also enable you to control your production in real time. Your production data and other information through to CO₂ emissions are available at a glance. You'll be keen to experience a new level of performance in medium format sheetfed offset printing.



Unlocking new markets Perfectly equipped for the future

The Rapida 106 X and Rapida 106 are suitable for use in any market segment. They also offer everything you need for super-efficient production in future markets. Special configuration and automation details generate high output and offer unrivalled productivity. Individual business fields can benefit from:

Commercial Printing/Web-to-Print

- ErgoTronic AutoRun - autonomous printing of a prepared job list with automatic “good sheet” counter start-up
- Plate logistics for ultra-fast make-ready times
- Unbent printing plates
- DriveTronic SPC (automatic plate change alongside other make-ready processes) to ensure the shortest possible job changeover times
- Flying Job Change for rapid changeover of version and language
- “Print clean” function can replace blanket washing in small systems
- Plate stretching (paper stretch compensation)
- Inline measurement and control systems including PrintCheck
- LED-UV process for immediate onward processing while ensuring the most brilliant colour even on uncoated papers

Premium packaging

- Automatic and accurate sheet alignment for safe onward processing (SIS)
- Maintenance-free pneumatic ink ducts for UV production
- EasyClean: specially coated ink ducts for rapid ink changes
- Disengageable inking units as standard
- Simultaneous roller washing with DriveTronic SRW during production
- Motorised blanket clamping device
- Equipped with one or more coater towers before or after offset printing for a wide finishing range
- Automated coating forme change in less than a minute with DriveTronic SFC
- State-of-the-art low-volume chamber blade technology
- AniLoxLoader for fully automated anilox roller exchange
- Inline quality monitoring, including comparison against the reference PDF and inline grey balance control
- Flexible dryer use (intermediate/final dryers, UV/conventional)
- Wide range of logistics systems for substrate conveyance
- Double-pile sheet delivery for unmixed depositing of the good sheets
- Configurations specially tailored to your applications according to your requirements

Label production

- Reel-to-sheet feeder RS 106
- Sheet length up to 780 mm possible
- Automatic and accurate sheet alignment for safe onward processing (SIS)
- High-performance ionisation unit and side blower with ionisation
- AirTronic air-cushioned sheet travel
- Optima cold foiling system
- DriveTronic SRW allows the simultaneous preparation of a printing unit for special colours
- Plate stretching (paper stretch compensation)
- Motorised blanket clamping device
- Equipped with one or more coater towers before or after offset printing for a wide finishing range
- Automated coating forme change in less than a minute with DriveTronic SFC
- State-of-the-art chamber blade technology
- AniLoxLoader for fully automated anilox roller exchange
- Comprehensive solutions for inline quality monitoring, including comparison against the reference PDF and inline grey balance control
- Wide range of logistics systems for substrate conveyance
- Configurations specially tailored to your applications according to your requirements





High speed for higher turnover

Rapid job changeover

The Rapida 106 X and Rapida 106 are built for performance down to the last detail, enabling you to get the maximum net sheet count from the press and meet your targets.

ErgoTronic AutoRun is the highest level of automation that allows a prepared job list to run entirely autonomously. Make-ready processes, production, colour control and register control run automatically as elements of a single integrated process.

An important element for automated production is the **DriveTronic** concept. Wherever

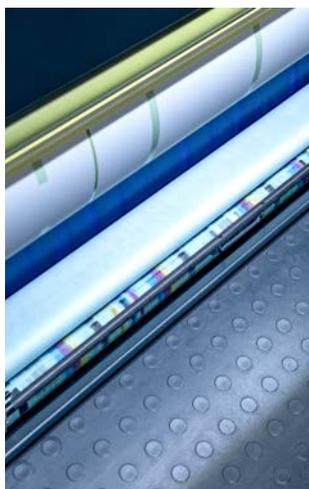
high performance is required, dedicated drives ensure optimised sequences and parallel processes that markedly reduce make-ready times.

Washing processes are also automated: **CleanTronic** gives you outstanding washing results on blankets, impression cylinders and rollers in no time at all, increasing the availability of your Rapida 106 X / Rapida 106.



DriveTronic at a glance

- DriveTronic Feeder: maximum preset capabilities
- DriveTronic Infeed: remote motorised adjustment of the feed line
- DriveTronic SIS: sidelay-free sheet infeed
- DriveTronic SRW: simultaneous roller washing during other make-ready processes (apart from plate changeover), optionally with multiple washing solvent circuits
- DriveTronic SPC: simultaneous plate changeover in all printing units
- DriveTronic PlateIdent: plate identification directly on the press
- Flying JobChange: fully automatic plate changeover during ongoing production
- DriveTronic SFC: automated coating forme change runs in parallel with other make-ready processes in the printing units



CleanTronic at a glance

- CleanTronic for simultaneous washing of rollers/blanket or rollers/impression cylinders
- CleanTronic Synchro: simultaneous washing of blankets and impression cylinders during plate changeover with DriveTronic SPC
- CleanTronic Multi: multi-media washing system permitting the use of different ink systems
- CleanTronic UV: safety function to eliminate waiting times before and after cylinder washing when printing with UV inks
- "Print clean" function: targeted stripping of the remaining ink from printing plates and blankets as an alternative to blanket washing





High quality – sheet after sheet

In order to meet increasing demands for higher quality, Rapida presses can be fitted with a wide variety of quality measurement and control systems. They help to reduce make-ready times and paper waste and ensure consistently high quality of printing production.

Most systems work with a **shared camera system**, which reduces maintenance work while simplifying handling and ensuring high availability.

Register measurement and control is possible with three different systems. The simplest solution is automatic measurement and control for an individual sheet with the separate ErgoTronic ACR video magnifier. ErgoTronic ICR controls the register for an individual sheet on the control console. The QualiTronic ICR offers fully automated register control directly on the press.

Two other systems measure and control the ink. ErgoTronic ColorControl can be used to control colour densities and (optionally) the spectral values in colour bars and in the image online on the control console. **QualiTronic ColorControl** makes colour control especially convenient. The camera system installed after the last printing unit or coating unit or the last unit before the turning unit automatically determines the optical densities while controlling the colour zones in the inline process.

ErgoTronic and QualiTronic form an unbeatable combination: from a simple online system through high-quality inline colour control to grey balance, there are a range of upgrade options to choose from. Whatever printing standard you require, Koenig & Bauer has the right solution for you.

With QualiTronic PrintCheck, PDFCheck and PDF HighRes, you have three different variants of **sheet inspection** to choose from. PrintCheck links the colour measurement to a fully automated comparison of the printed sheet against the reference. As an addition to these functions, PDFCheck offers a comparison of the sheet against the customer PDF. QualiTronic PDF HighRes is aimed above all at users who require a resolution of up to 290 dpi for sheet inspection, making it ideal for fulfilling strict requirements such as those of the pharmaceutical industry.

Rapida 106 X

Rapida 106



**Control console technology:
Made by Koenig & Bauer**

- Customer Community – central interface to all digital services and Koenig & Bauer
- State-of-the-art operating concept on the ErgoTronic control console (including touchscreen for intelligent, straightforward handling)
- Wall screen for visualisation of all press settings
- Job changeover program for fully automatic and coordinated make-ready sequences
- Autonomous printing with ErgoTronic AutoRun
- Job profiles saved for repeat jobs
- Rapida LiveApps (mobile control console, storage and batch monitoring)
- Integration into the LogoTronic Professional operating data recording system

**VariDry dryer systems:
For every eventuality**

- High-performance VariDry IR/TL, VariDry UV, VariDry HR-UV and VariDry LED-UV dryers all in one – dryer technology is Koenig & Bauer's core area of expertise
- Flexible use of the UV dryers for intermediate and final drying
- Optional dryer control including sensors for UV lamp monitoring
- Lamp replacement without tools
- VariDry^{Blue} technology for maximum energy efficiency

**AirTronic delivery:
Maximum preset capabilities**

- Aerodynamic gripper carriages optimise airflows, prevent turbulence, and reduce powder consumption
- Powder application on both sides in presses with perfector for appropriate powder application
- Sophisticated Venturi system ensures a stable supporting air cushion
- Dynamic sheet brake with speed-compensated suction conveyors



Coating unit: Simply refined!

- Various delivery extensions for the integration of additional dryer modules for higher performance and special coating applications
- Double pile delivery for waste-free piles
- EES (Emission Extraction System) to extract potentially hazardous exhaust air
- Non-stop solutions for uninterrupted production and smooth pile changes
- Large, user-friendly touchscreens for relevant functions and air settings
- State-of-the-art chamber blade technology with lightweight anilox rollers
- Fully automatic, push-button anilox roller exchange from the console using AniloxLoader
- DriveTronic SFC (Simultaneous Forme Change), automated coating forme change with changeover time of approx. 1 minute
- Remote setting of printing pressure and lateral, circumferential and diagonal register
- Coating supply system for dispersion coating and UV coating in separate circuits
- Fully automated washing process from the control console, optionally with washing system for impression and coating forme cylinders

CleanTronic For outstanding washing results

- Parallel washing processes and job-specific, pre-selectable washing programs
- CleanTronic multi-purpose washing system for ink rollers, blanket, and impression cylinders
- CleanTronic Synchro with separate washing beam for blanket and impression cylinder washing
- CleanTronic Multi: multimedia washing system permitting the use of different ink systems
- CleanTronic UV to avoid waiting times before and after cylinder washing in UV production
- CleanTronic SRW: roller washing also in UV production



Plate changeover: Take your pick!

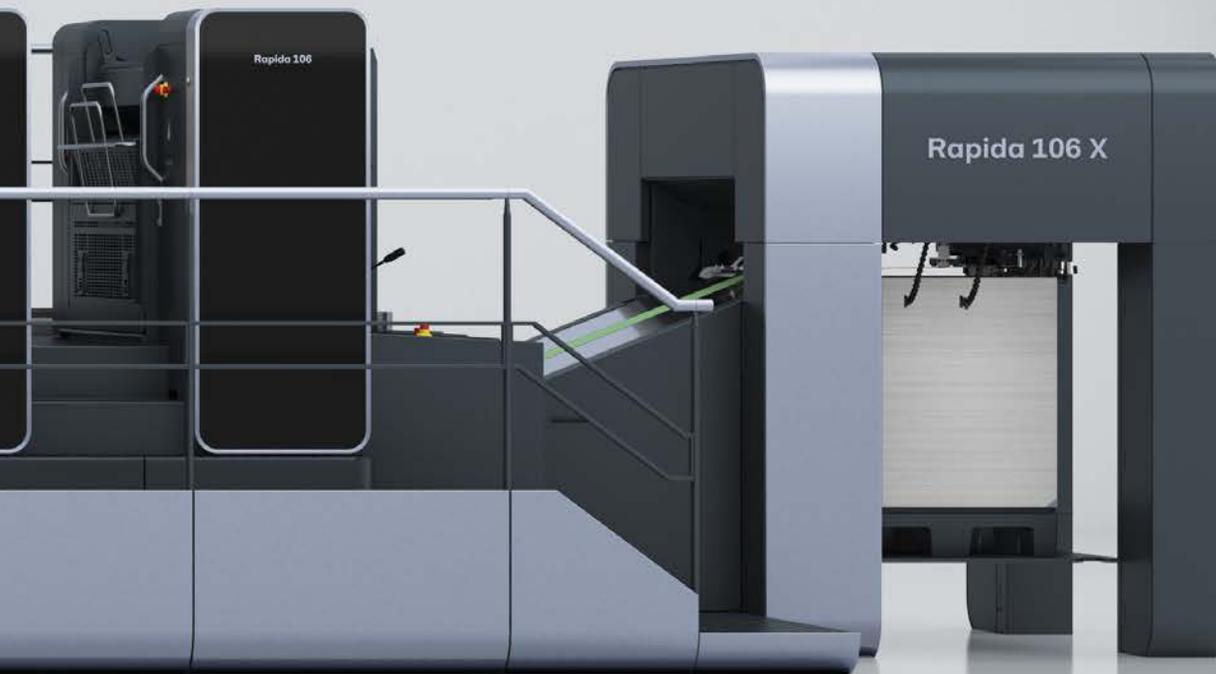
- Faster, optimised changeover process for fully automatic plate change (FAPC)
- DriveTronic SPC (Simultaneous Plate Change)
- Flying JobChange
- DriveTronic PlateIdent for plate identification directly on the press
- Optional use of unbent printing plates
- ErgoTronic PlateStretch: pneumatic plate stretching to compensate for paper stretching
- Modular, flexible and fully automatic plate logistics from the pre-press through to the plate changeover holder

Perfector: Fully automatic

- Tried-and-tested three-drum configuration for exact perfecting register
- Fully automatic switching between straight printing mode and perfecting mode
- Jackets on impression cylinders with state-of-the-art ink-repellent coating
- Anti-marking coat: coated drum shells
- Gentle, air-cushioned sheet guide system through blower systems and Venturi sheet guide plates
- Rotary suckers to spread the rear edge of the sheet tight on the storage drum
- Pneumatic settings for spreading suckers
- Air settings can be set and saved on the control console for repeat jobs
- Video system for monitoring sheet travel

Inking unit: Perfection in colour

- High repeat accuracy thanks to bleed-free metering in the ColorTronic ink duct
- Maintenance-free pneumatic ink ducts for UV production for precise metering and high repeat accuracy without the use of consumables
- Stepless adjustment of oscillation timing from the control console during production
- Ink train separation upon throw-off
- Individual disengagement of inking units when not needed to reduce roller wear and make-ready times
- Temperature control of the duct roller and the ink distributors
- Speed-compensated VariDamp film-type dampening unit for a stable ink/water balance
- Differential drive to prevent hickey formation
- Motorised blanket clamping device
- Software routine for roller setting



**Printing unit:
Clockwork precision**

- Substructure cast in a single piece for high torsional rigidity and stability
- Ultra-quiet operation and precision thanks to continuous gear train
- Double-size impression cylinder and transfer drums for low-profile sheet travel – even heavy substrates are subject to only minimal buckling
- Universal gripper system adapts seamlessly to changes in substrate thicknesses
- Venturi air-cushioned sheet travel for contact-free sheet transfer
- Air settings can be set and saved on the ErgoTronic control console for repeat jobs
- Mechatronic adjustment of lateral, circumferential and diagonal registers
- Automatic setting of the substrate thickness
- Two-stage pneumatic throw-on and throw-off

**DriveTronic SIS:
Simply ingenious**

- Sensoric Infeed System (sidelay-free sheet infeed)
- Patented sheet infeed system
- Electronically controlled lateral sheet alignment, eliminating maintenance and wear
- Gentle sheet positioning with the highest possible accuracy
- Integration into automatic format adjustment eliminates all need for operator intervention
- Patented Venturi system before the feed line for smooth sheet infeed

**DriveTronic sheet feeder:
Ultimate ease of operation**

- DriveTronic sheet feeder for continuous, stepless vertical pile movement mechanism with automatic speed adjustment for paper and cardboard
- Feed board with electronically controlled sheet deceleration to ensure optimum sheet arrival speed at the front lays
- Motorised remote adjustment of the sheet infeed with DriveTronic infeed for front lays, feed line and cover lay height
- Automatic format adjustment and sidelay control
- User-friendly, large touchscreens for all required functions
- Ultrasonic double sheet detector, other sheet controls according to the printed substrates
- Uninterrupted printing production thanks to non-stop solutions

Technology at a glance



Sustainable and flexible Eco-friendly through and through

Sustainable production are the words on everyone's lips. With the Rapida 106X / Rapida 106, we are all making a contribution towards reducing the carbon footprint of the printing process in order to conserve resources and prevent (paper) waste.



It starts with the VariDry dryer family: The **VariDry^{Blue}** IR/TL dryers in delivery and delivery extension combine maximum drying performance with low energy consumption. By reusing the recirculated air as drying air, we reduce the energy requirements compared with conventional dryers several times over. This has an impact on the entire printing process, as drying usually involves the highest electricity consumption.

LED-UV drying offers even greater potential for saving energy. What is more, LEDs will switch on or off to adjust to the dimensions of the paper format. Other advantages of this innovative drying process include:

- Perfect printing results on uncoated papers and non-absorbent substrates
- Less paper waste thanks to the elimination of scratches and smears
- Higher printing performance in perfecting mode
- Elimination or significant reduction of powder and protective coating
- Lower rate of complaints thanks to elimination of post-drying effects or colour changes
- Reduced job lead times as a result of immediate onward processing
- Reduced cracking along fold lines in the printed image
- Lower washing times – even in onward processing presses

Our **Preferred Suppliers** provide you with substrates that are matched exactly to the Rapida sheetfed offset presses in our Customer Experience Center, where they are comprehensively tested together. The same is true of the wide range of consumables that are available to purchase from our webshop and elsewhere under the **PressConsum** brand. You can benefit from these tested substrate combinations and save on time and waste, and help our environment too.





Digital workflows Everything in real time

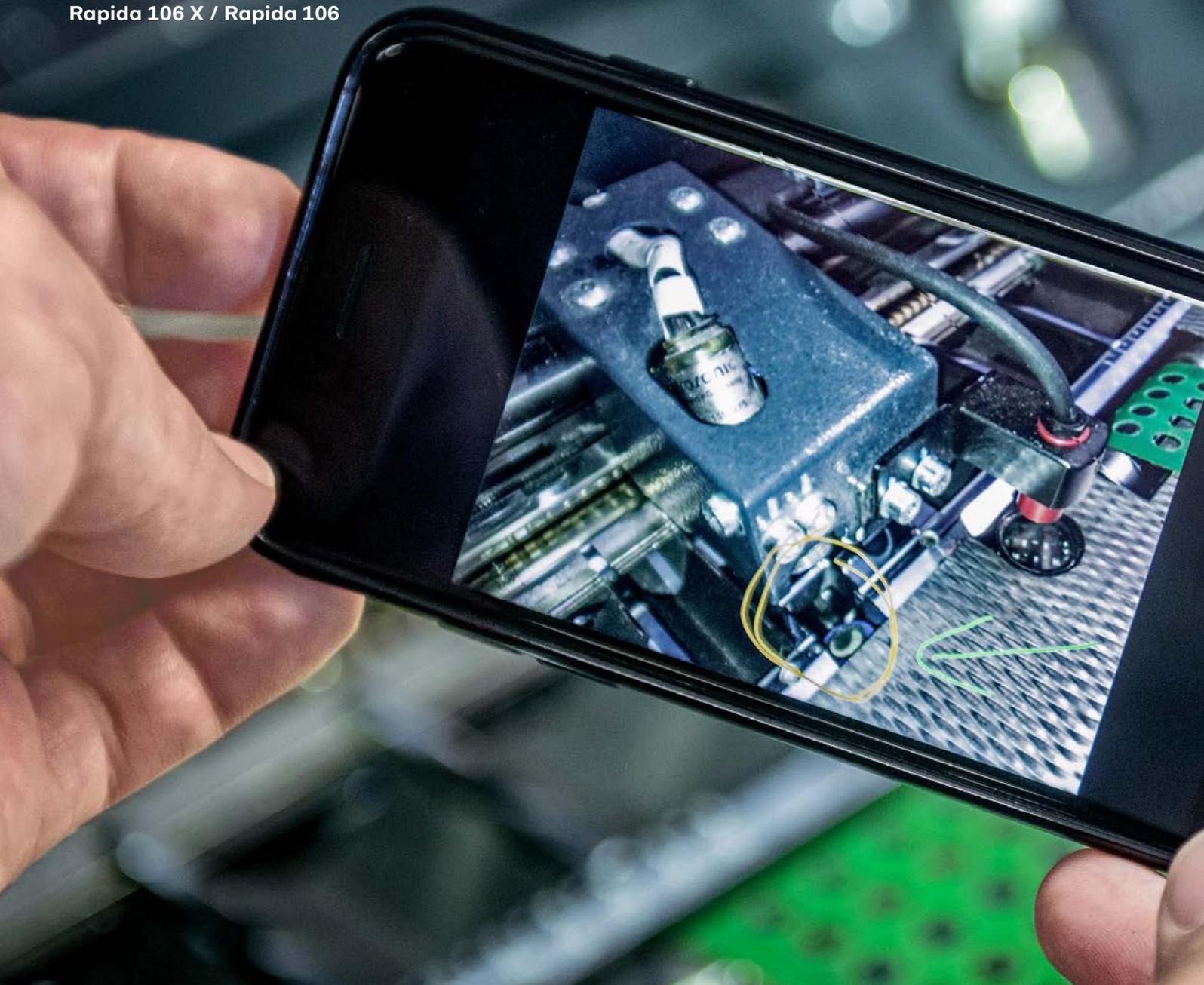
Continuous workflows are just as important as engineering and technology. They slim down and optimise the processes within the business while contributing towards increased economy.

MIS systems such as **Optimus Dash** represent the complete process chain of commercial, label or packaging production alongside value creation and control the business processes in real time. The benefits offered by the range of features in Optimus Dash include flawless communication between all departments, lean management, demonstrating optimisation potential and cost focus.

Rapida LiveApps provide printers with state-of-the-art tools for press operation and storage management.

The **ErgoTronicApp** allows you to control the Rapida 106 X / Rapida 106 all from the same place. Printers will find all job data, the production time, notifications and maintenance instructions, including support, on their mobile devices to enable them to carry out the job. The ErgoTronicApp gives you the control console in the palm of your hand.

The **ProductionApp** allows you to not only manage stores but also to monitor the remaining service life of relevant consumables. The app provides an accurate overview of what print jobs were produced with which batches of substrates, colours and equipment even after the job is finished.



Digital services at the push of a button New experience in the application

The Customer Community forms the central interface between Rapida users and customer service representatives. In this portal, you will find all digital services in one place. Users and manufacturers will have an identical information database that they can access, meaning that they are all on the same page when it comes to working together.



PressCall improves communication during remote maintenance. By pushing a button on the control console, the hotline technicians will be able to view all the information they require. Communication is optimised while language barriers are removed. A customer procedure is automatically created in CRM. This enables solutions to be found more quickly and efficiently, which in turn reduces downtime and increases availability.

Visual PressSupport is an additional means of optimising communication during remote maintenance. By using the functions of modern mobile devices, remote maintenance issues can be communicated easily and directly using photos and videos, audio transmission and comment functions. In this way, Visual PressSupport extends the functionality of remote maintenance to include process engineering and mechanical support.

Users with a remote maintenance contract will receive a regular **Performance Report**. This shows performance data and key performance indicators of presses in an easy-to-understand graphic form. This allows performance data to be compared and maintenance work to be planned in advance, as well as revealing optimisation potential and reducing unscheduled downtime. Performance and availability will increase.

The **Press Inspection Report** provides a summary of the results of press inspections in an equally easy-to-understand format. You will be able to instantly identify potential technical improvements and the reasons for maintenance work as well as its duration. It also lists the required interventions in order of priority according to impact on the productivity of the press as well as the urgency for individual parts to be replaced.



Rapida 106 X / Rapida 106:

Technical data

Sheet format

Maximum (straight/perfecting)	740 × 1,060 / 740 (750) × 1,060	mm
Special formats (straight)	750 × 1,060 / 780 × 1,060	mm
Minimum (straight/perfecting)	340 × 480 / 400 × 480	mm

Print format

Maximum (straight/perfecting)	730 × 1,050 / 720 (730) × 1,050	mm
Special formats (straight)	740 × 1,050 / 770 × 1,050	mm

Substrates¹

Standard	0.04–0.7	mm
With cardboard handling package (from approx. 450 g/m ²)	up to 1.2	mm
With corrugated package	up to 1.6	mm
With film and plastics package	0.1–0.7	mm
Perfector press	up to 0.6	mm
Perfector press with cardboard handling package	up to 0.8	mm
Gripper margin	10	mm

Production speed²

Depending on the configuration	17,000 - 20,000	sheets/h
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Pile heights from floor

Sheet feeder	1,250	mm
Sheet feeder in non-stop operation	1,000	mm
Delivery	1,200	mm
Delivery in non-stop operation	900	mm

Plate and blanket dimensions

Standard printing plate	795 × 1,060	mm
Standard copy line	36	mm
Blanket	860 × 1,070	mm

¹ Suitability for printing is partly determined by the flexural rigidity of the substrate.

² Depends on individual operating conditions, and inks and substrates used

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