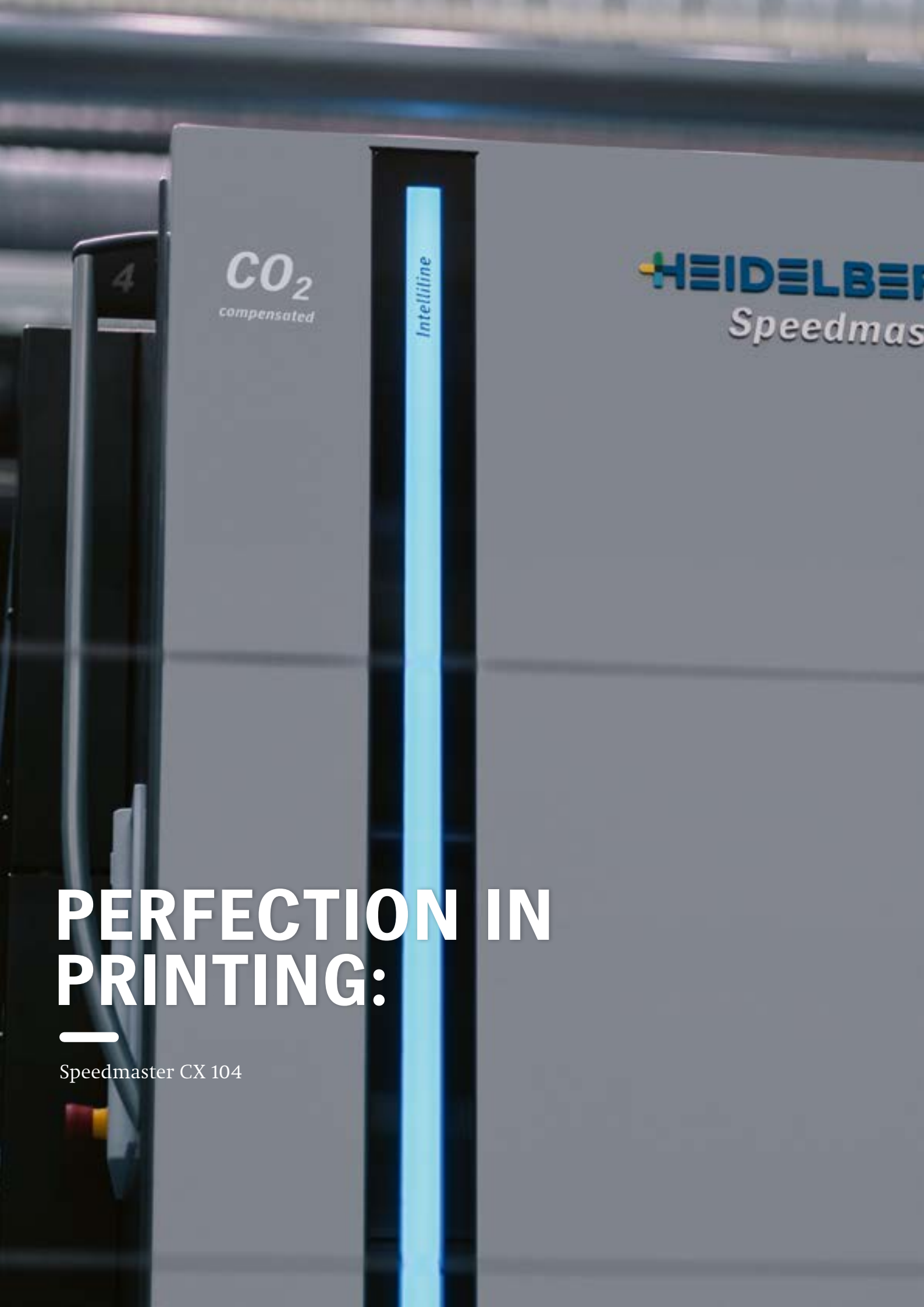
HEIDELBERG

Speedmaster CX 104

# TURNING IDEAS INTO PROFIT.




# PERFECTION IN PRINTING:

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# A CLASS OF ITS OWN IN PACKAGING AND COMMERCIAL PRINTING.

Welcome to the future: with the Speedmaster CX 104, you are ready for anything your customers may ask of you.

**Printing has never been easier.**
The machine concept of the Speedmaster® CX 104 combines proven reliability with technical innovation and an outstanding operating concept.

It makes printing fun!

The Speedmaster CX 104 opens up a whole new host of opportunities to you – right up to navigated or autonomous production.

This is made possible by intelligent assistance systems like Intellistart® 3 and Intelliline, which revolutionize job changes with time-optimized automation and provide complete transparency.

The universal straight-printing press in the new format can process all materials – from lightweight paper to rigid cardboard – with ease. With speeds of up to 16,500 sheets per hour, it also holds it own when it comes to performance. And the innovative, easy-to-handle coating unit helps you to make all your customers' finishing dreams come true.

This versatile and efficient performance impresses not only packaging professionals, but also commercial and label printers.

No matter what other segment you may be interested in for the future, the Speedmaster CX 104 can be freely configured – entirely to your needs – with various add-on packages.

For you this means added future-proofing and investment security.

# GREATER VARIETY IN LESS TIME.

**A real all-rounder.** In a new format. The Speedmaster CX 104 is ready for anything your customers may ask of you, from packaging printing to commercial printing to label printing, from lightweight paper to cardboards. With this machine, you will impress your customers in every respect.

The Speedmaster CX 104 is the perfect machine for flexible printing – precisely tailored to your wishes. It allows you to process a wide range of substrates and can be equipped entirely to your needs with different add-on packages.

**Packaging at its finest.**
The Speedmaster CX 104 provides all the prerequisites for success in high-quality packaging printing. The Karton Kit offers reliable sheet travel when processing cardboard packagings. The FoilStar® cold foil module opens up a variety of unusual finishes – brilliant metallic effects that add value to print products.

UV technology adds attention-grabbing high-gloss effects and eliminates waiting times during postpress. And the innovative coating unit combines the highest finishing standards with exceptional operating convenience.

**Impressive commercial printing.**
The Speedmaster CX 104 is extremely economical, and highlights a lean and efficient production process. The highly automated high-performance feeder and delivery offer outstanding operating stability. Substrate-dependent characteristic profiles stored in the memory permit fully automatic presettings for all relevant format and air values.
The result is minimized makeready times and high production speeds.

# AS INDIVIDUAL AS YOU.

The machine is geared to you, not the other way around.

**The printing method is determined by the application – the choice is yours.** How can you meet the increasing demands of the printing market? The Speedmaster CX 104 has the answer: with a flexible printing press configuration. It makes it easy for you to switch between conventional and instant-dry UV inks, thanks to the additional washing circuit for the inking unit, blanket, and impression cylinders. Fast and economical. Exactly as required for the particular job.

**Auto Protect: roller protection during operation.** If a printing unit is not initially needed after a job change, it is washed in a fully automatic process and a roller protectant is applied. This Auto Protect function greatly increases the lifespan of the inking rollers. When the printing unit is needed again, the roller protection paste is automatically rinsed off and the unit can be filled with ink straightaway.

**Ink mist extraction: Improved working environment.** All inking units generally produce ink mist, to a greater or lesser extent depending on the ink used and the printing speed. In the Speedmaster CX 104, this ink mist is removed by a highly efficient extractor.

Whether conventional
or instant-dry UV inks –
the choice is yours.

# FORM FOLLOWS FUNCTION.

The Speedmaster CX 104 sets standards when it comes to ergonomics and safety.

**A coating unit with exceptional operating convenience.** The innovative coating unit is also designed for variety and fast changes between different applications.

**When things have to go fast.**
The improved screen roller change in the optimized coating unit makes the makeready process noticeably easier, safer, and faster. The coating plate can now also be clamped centrally with ease. This makes plate changes much faster.

Integration into the machine controller via the Prinect Press Center® XL 3 offers a variety of options for remote control, like register adjustment, pressure adjustment, and cleaning sheet activation.

The benefit for you: the time required for these activities is reduced and machine availability and economy are significantly increased.

**Ergonomic design for an optimal operating environment.** The gallery with handrails and the well-thought-out step concept provide excellent access to the machine. All parts of the press are easy to reach, and the machine is safe to operate.

Thanks to intelligent design solutions, improved operator ergonomics do not mean more space is required.

# MACHINE HIGHLIGHTS AT A GLANCE.

# IMPRESSIVE DOWN TO THE SMALLEST DETAIL.

Speedmaster CX 104.

- **High performance**
  Maximum speeds of up to 16,500 sheets per hour per hour for all materials, from lightweight paper up to cardboard.

- **Powerful automation**
  for shorter makeready times, less paper waste, and dependably high print quality.

- **For the highest finishing demands**
  Innovative coating unit with exceptional operating convenience. The well-thought-out changing concept for screen rollers and coating plates results in much shorter makeready times – and thus in increased economy.

- **Ready for UV technology**
  Fast postpress and throughput times thanks to instantly dry sheets. The highly efficient ink mist extractor ensures a clean working environment.

- **Ergonomic machine design**
  Innovative walk-on concept with optimal access to all machine components sets an extremely high standard for operating convenience.

- **HEIDELBERG User Experience**
  The Prinect Press Center XL 3, the one-of-a-kind navigation with Intellistart 3, and intelligent assistance systems ensure predictable results and increased performance.

- **High productivity**
  through automatic set-up and high print run quality. Prinect Inpress Control® 3 automatically measures and controls color and register on the fly and at all speeds.

- **Fast plate changes**
  Fully automatic sequential plate change with AutoPlate Pro.

- **Reliable sheet travel**
  AirTransfer system with universal grippers on the transfer drum for materials in the range from 0.03 through 1.0 millimeters (0.0012 through 0.039 in). Quick and easy changeover to different paper and cardboard qualities.

- **Efficient and intelligent washing**
  Fully automatic, program-controlled washup devices for inking unit, blanket and impression cylinders with sensor-based monitoring and extremely short washing times. Wash Assistant finds the best program for the job for optimal results with just a small amount of washing agent.

- **Roller protection**
  Auto Protect ensures fully automatic protection of the unused inking rollers during operation.

- **Lined ink fountain**
  Quick and easy cleaning thanks to self-calibrating and maintenance-free ink zones.

- **Standardized, uniform inking**
  Color Assistant Pro enables fully automatic and continuous optimization of the ink presetting and precise ink metering.

- **Continuous production**
  Automatic non-stop delivery for fully automatic, interruption-free pile changes

- **Flexible machine configurations**
  with different add-on packages for whatever your customers ask of you.

**Prinect workflow.** The all-in-one solution.

Prinect Business and Prinect Production integrate all the steps involved in print production into a consistent process: from costing via production in prepress, press, and postpress through to billing. Less complexity, higher profits: With Prinect, you use all workflow functions but only pay for the actually produced volume.

**Find out more:**
**heidelberg.com/en/prinect**

HEIDELBERG
Speedmaster
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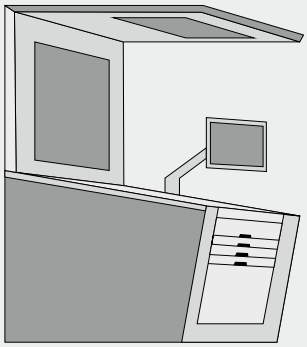
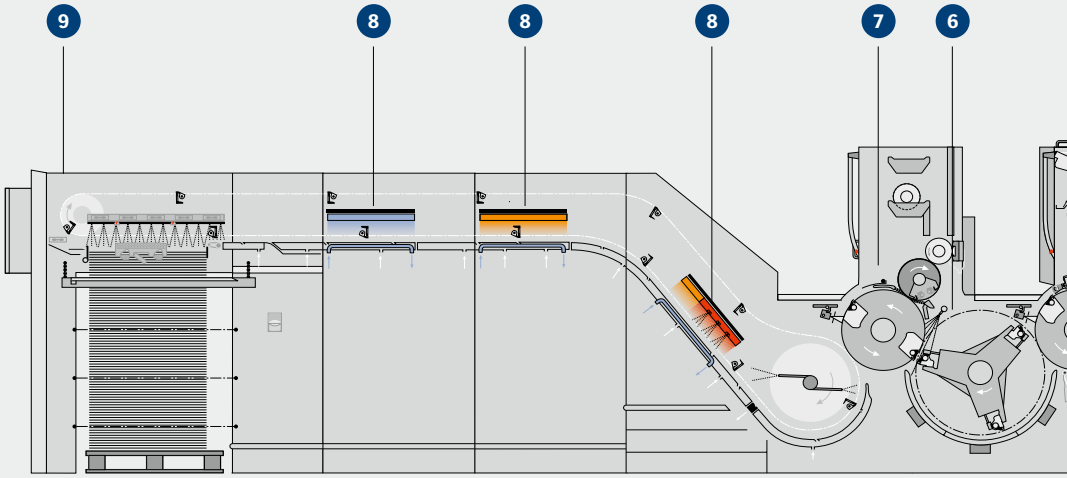


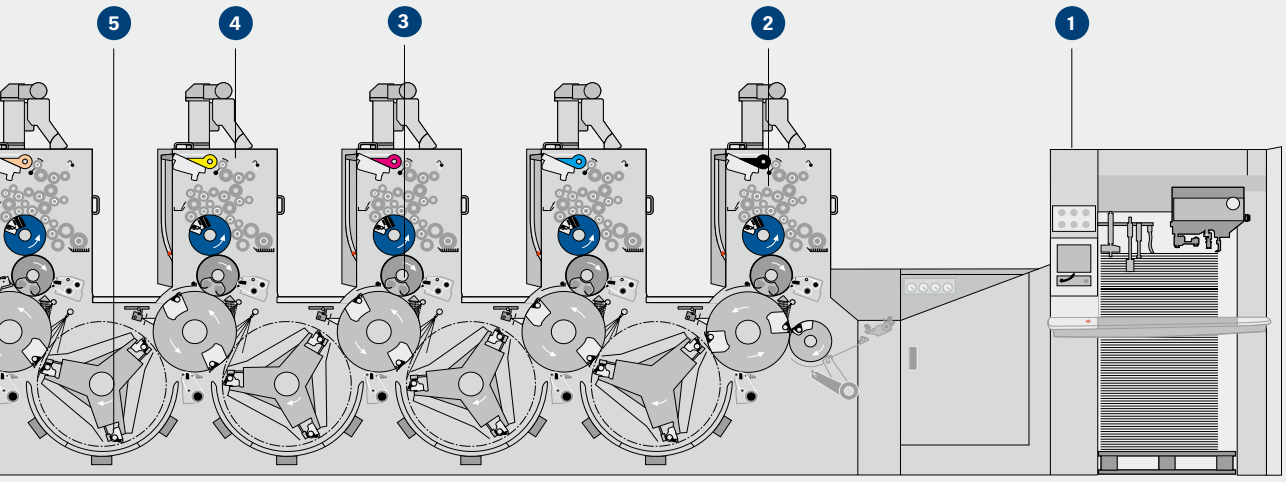



The machine shown is a sample configuration.
Some of the equipment features mentioned are optional.

# TAILOR-MADE FOR YOUR BUSINESS MODEL.

The machine components at a glance – the Speedmaster CX 104 with flexible configuration options has something for everyone.

You can find more information and technical details about your Speedmaster CX 104 here:
**heidelberg.com/en/cx104**




### 1 Feeder

Preset Plus feeder automatically adjusts format and air settings. Control panel with touchscreen for intuitive and ergonomic operation.

### 2 Inking unit and dampening unit

Inking unit with lined ink fountain and Alcolor® dampening unit, for outstanding production stability. The Vario function prevents hickeys in the production run.

### 3 Printing unit

AutoPlate Pro for fully automatic, staggered plate changes within the shortest time. InkStar® ink supply system for automatic filling of the ink fountains.

### 4 Washup devices

Fully automatic washup devices for inking unit, blanket, and impression cylinders for short washing times. Auto Protect: roller protectant reduces inking roller wear when the unit is not in use.

### 5 Sheet travel

AirTransfer system, the contact-free sheet guide with Venturi nozzle technology for outstanding sheet travel quality and substrate flexibility.

### 6 Color and register measurement and control system

Prinect Inpress Control 3 spectrophotometrically measures and controls the color inline during production. The register is checked at the same time and readjusted.

### 7 Coating unit

Innovative coating unit with a high-quality chamber blade system and unique quick-change system for screen rollers and blades. Simple change of coating blanket and plate. Homogeneous coating application with a high degree of gloss thanks to Saphira® anilox rollers, manufactured in-house using the patented PLP pulse laser process.

### 8 Dryer system

DryStar® Combination with infrared as well as hot-air and recirculated-air modules, optimally coordinated with the sheet travel.

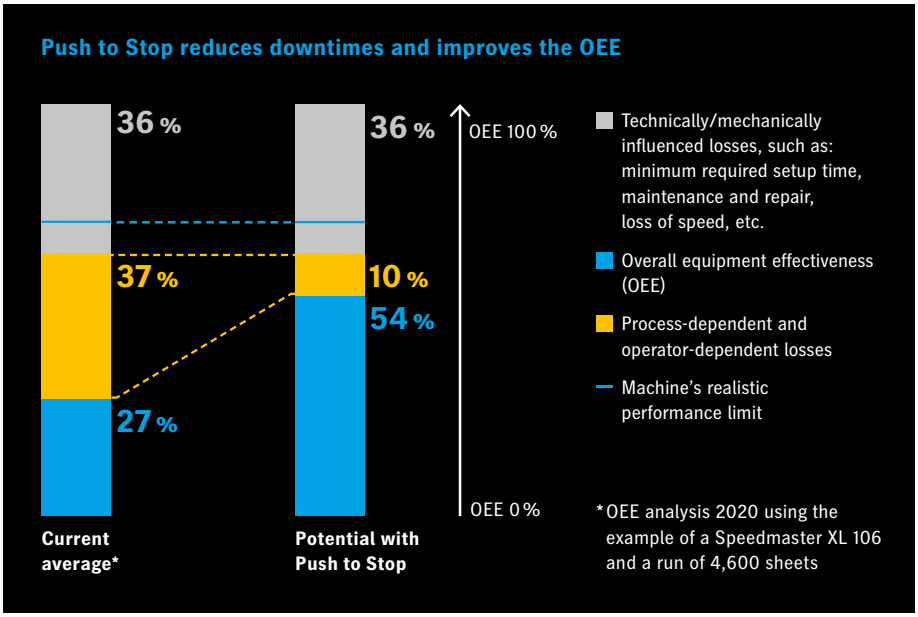
### 9 Delivery

Preset Plus delivery for high-precision pile formation with the shortest makeready times by adopting presetting data. Automatic non-stop device ensures interruption-free pile changes at the delivery. Dynamic sheet brake accepts the sheet and decelerates it to the delivery speed under controlled conditions.

**Significant increase in overall equipment effectiveness (OEE)** and outstanding productivity the smart machines take advantage of the huge spectrum of digital possibilities, making it the most highly automated and intelligent Speedmaster generation yet. The clear focus on operator-independent performance on the Speedmaster raises the Push to Stop philosophy from HEIDELBERG to a whole new level.

**Push to Stop.**
The key to the
smart print shop.

**The future of industrial printing.** Integrated communication along the entire process chain, paired with intelligent automation – this is the future of modern print production, whether for smaller businesses or large industrial printing companies. Intelligent production reduces complexity and speeds up processes autonomously.
The key to this is digital connectivity with the Prinect® print and media workflow.




**Maximize your OEE with the Speedmaster.** OEE – the key performance indicator for productivity. Overall equipment effectiveness is an important key performance indicator for assessing how effectively a production system is operated in practice. It is made up of the factors of availability, performance, and quality. The average OEE is currently around 20 percent across all format classes. Speedmasters with an OEE of 50 percent and more and up to 90 million printed sheets a year are evidence that this can be improved upon.

**Exploiting potential: focusing on the yellow bar.** In order to increase the OEE of the machines, existing improvement potential must be activated. Around half of this potential is tied to technical aspects (gray bar in graphic). However, technical improvements will not necessarily result in success – only if the organizational aspects are improved at the same time. The other half of the potential relates to processes and operators (yellow bar in graphic). This is precisely where HEIDELBERG® concentrates its activities.

**With Push to Stop,** more extensive process automation, and intelligent assistance systems, the Speedmaster presses enable even more comprehensive navigated and autonomous printing. The machine's intelligence minimizes the operator's influence on performance. Productivity is increased, processes are sped up, and become plannable and reproducible. Push to Stop on a new level – for optimized overall equipment effectiveness on all Speedmaster models.

ALL LIGHTS
ON BLUE.

# THE HEIDELBERG USER EXPERIENCE.

**Immerse yourself in the world of the HEIDELBERG User Experience (UX):** completely well thought-out and clearer than ever before, it sets standards for the user experience on the Speedmaster. The Prinect Press Center XL 3 with the Speedmaster Operating System simplifies operation through one-of-a-kind navigation and intelligent assistance systems, thus ensuring predictable results and increased performance.

**A clear view for quality and precision.** The HEIDELBERG UX offers integrated and intuitive operation of all HEIDELBERG touchpoints. Intelligent assistants and uniform operator guidance reduce complexity and simplify production processes.

**Speedmaster Operating System.** With the intuitive touch operation, settings can be called up very easily with a click, and the scalable operation can be flexibly adjusted in accordance with the requirement profile. Intuitive operator guidance, innovative gesture control, and integrated help functions eliminate lengthy searches.

**One-of-a-kind navigation and automation.** Intellistart 3 defines all the steps required for the job change – without any operator intervention. Intelliguide® simulates the time-optimized sequence live and, if necessary, also includes the steps to be executed manually.

**Everything at a glance.** All production steps are visualized by the live display on the Wallscreen XL. Intellirun, the dynamic production view, shows the operator the right view at the right time, fully automatically, and provides intelligent information on the current production status. The Intelliline LED-based navigation support extends this logic to the machine. The resulting expansion of the process display provides a color visualization of the operating status on all printing, coating, and drying units on the operator and drive sides. You can keep an eye on everything at all times and are prompted when intervention is required.

**Perfect data and color management with Prinect.** The Prinect Press Center XL 3 links the printing press to the print shop's Prinect workflow. Job data can be transferred and also made available in an automatically defined sequence. The production data is returned fully automatically. This enables you to benefit from excellent data management, one-of-a-kind presettings, up-to-date production data, and informative reports. The Prinect Inpress Control 3 inline color measurement and the powerful Prinect® Axis Control® also offer you optimal, reproducible color stability and minimum paper waste. All color measurement systems are perfectly integrated into the workflow. The color library provides the reference values for color control with each job and also serves as the basis for the color reports.

The flexible Press Center Mobile web application provides you with a quick overview of all Speedmaster machines. All relevant information is available on the move and in real time.

The Production Screen visualizes important production and process data and thus optimizes the processes in your print shop.

# ENERGY-EFFICIENT AND CARBON-COMPENSATED.

**Save with us.** Without having to give up anything: as a trailblazer in green printing, we develop solutions for conserving resources and sustainability. The future belongs to environmentally friendly printing. That is why the Speedmaster CX 104 not only sets standards in terms of productivity, but also in terms of environmental friendliness.

**Green printing – to keep you in the black.** Minimize consumption, maximize performance: the Speedmaster CX 104 is geared towards environmentally responsible production in every aspect. The peripherals are optimally tailored to the press and thus help to ensure resource-efficient printing.

**Reduce or avoid alcohol use with the CombiStar®.** The flexible equipping of the machine with special packages enables the use of alcohol to be reduced or completely avoided, an important contribution to green print production.

**Energy-efficient central air supply.** The unique energy- and space-saving turbo radial blowers of the AirStar® Pro deliver extremely high efficiency. Overall, energy consumption can be reduced by up to 50 percent.

**Compressed air supply free of oil and condensation.** The energy-efficient ScrollStar® highlights low energy consumption, high reliability, and optimal availability – for reliable, resource-efficient production.

**Main drive with the highest efficiency.** The electronically controlled sine synchronous drive of the Speedmaster CX 104 offers impressive energy efficiency and outstanding efficiency of up to 95 percent.

**Energy-saving standby function.** If production needs to be interrupted, you can place the machine in energy-saving mode at the press of a button using the standby function.

**Carbon-compensated printing press.** The Speedmaster CX 104 presses can also be purchased in a carbon-compensated way on request. This means that all $CO_2$ emissions generated are offset through investments in Gold Standard-certified projects.

**You can find more about our commitment to the environment here: heidelberg.com/environment**

## Ecology

# Wash Assistant –

always the optimum washup program for efficient and resource-friendly washing.

Only

## 2 cl

of washing fluid for each rubber blanket wash cycle.

Save without switching off – the standby function cuts electricity consumption

## by up to 50 %.

Prinect Press Center XL 3 with LED daylight lamp combines performance with **high energy efficiency**.

# WE ARE BY YOUR SIDE ON YOUR WAY INTO THE DIGITAL FUTURE.

As a pioneer, we offer you an entire ecosystem for the digitization of value creation in print shops. You benefit from intelligent services such as predictive maintenance as well as forward-looking business models such as pay-per-outcome.

**Demand-based production: with Simply Smart printing.** HEIDELBERG provides the presses, software, consumables and services. You pay for the number of printed sheets and thus for "productivity on demand", which can be flexibly adapted to your demand. We call it "Simply Smart".

**That decisive step ahead: the HEIDELBERG Smart Print Shop.** For better decisions, increased productivity and greater efficiency. As a technology pioneer, we lead the way and deliver added value in the digital transformation of your business. Data-based services pave the way for the Smart Print Shop – the digitally networked, intelligent and highly automated print shop of tomorrow.

## Availability

**Remote** connection makes error analysis on average

**50 %** faster.

Worldwide **service network** in

**170 countries**

enables fast and competent assistance to ensure high availability of the machinery.

# Your dialog with HEIDELBERG.

We hope this brochure has inspired you. Our aim is to make you even more successful in the future, so feel free to contact us with your questions and suggestions. We're only ever an e-mail or phone call away.

**We look forward to hearing from you!**

Whether you're just curious or have specific things you'd like to ask, simply send an e-mail with your questions, requests, or comments to

**contact@heidelberg.com**

or use our contact form at

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For details on the emissions of the Speedmaster CX 104, please visit us at heidelberg.com/emissiondetails

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