

Produce reliable quality.
**Color and quality
measurement systems.**





The whole spectrum of the color world.

Color and quality measurement systems.

Each time getting the color right is essential in all print shops. For this purpose, HEIDELBERG has been using spectral color measurement systems for over 30 years, which not only show the density but also the color itself as seen by the human eye. Whether ink formulation in packaging printing or ISO standard in commercial printing, everything is based exclusively on colorimetric CIEL*a*b* values.

The color library with the standard interface for importing and exporting CxF data includes target values for PANTONE® Plus, HKS, and FOGRA51/52 in the scope of delivery. In addition to the end customer's target values, the wet color values required in the press-room for production are also saved. This makes the set-up even faster.

Optimum quality assurance at the highest printing speeds is achieved through top performance in sheet inspection. For this purpose, high-resolution color cameras check each sheet, now also on both sides, even before follow-up costs are incurred.

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

A decision in favor of color and quality measurement systems from HEIDELBERG is not just a decision in favor of the original spectral color measurement, but also a decision for the future.

For all requirements.

Inspection systems from HEIDELBERG.



High-quality and sophisticated packaging for the pharmaceutical, cosmetics and food industries must be demonstrably precisely processed and meet high quality standards. The production of labels is also challenging, because the substrates are finished in a variety of ways.

In both packaging and label printing, it is not only the right color scheme that is decisive for the quality of a print product. It is important to detect and eliminate printing and material defects at an early stage in order to avoid complaints.

Traditional commercial printing offers a wide range of products for short to medium runs. High-quality production at a low cost per sheet ensures decisive competitive advantages.

Prinect Inspection Control 4 stands for top performance in sheet inspection. Two high-resolution color cameras check each sheet 100 percent for material defects, hickies, ink splashes, scumming, etc., even before follow-up costs are incurred.

In the case of perfecting machines, the cameras are positioned in front of the perfecting device and in the coating unit or the delivery.

Prinect Inspection Control 4 is the basis for safe production across all runs.

Prinect Inspection Control 4:

- Double-sided inspection possible
- Two high-resolution color cameras for precise inspection
- High inspection quality up to the rear edge of the sheet
- Optimized, automatic comparison of the print sheet with the PDF data at maximum speed
- Extensive test protocols
- Maintenance-free LED lighting

Reliably error-free printed sheets.

Prinect Inspection Control 4.



The integrated Prinect Inspection Control 4 inline sheet inspection system reliably detects the smallest print and material defects. For this purpose, printed sheets are permanently compared with a digital reference value. The optimal sheet guidance enables comprehensive inspection up to the rear edge of the sheet.

Prinect Inspection Control 4 sets up in the background and automatically triggers a PDF comparison. All processes are displayed simply and transparently on the Wallscreen XL or the multi-touchscreen.

Thanks to the full integration into the print shop's workflow, manual set-up processes are completely eliminated. The high level of automation and the integration option support the Push to Stop philosophy.

Detailed reports are available in the HEIDELBERG customer portal for verifiable quality.

Highlights:

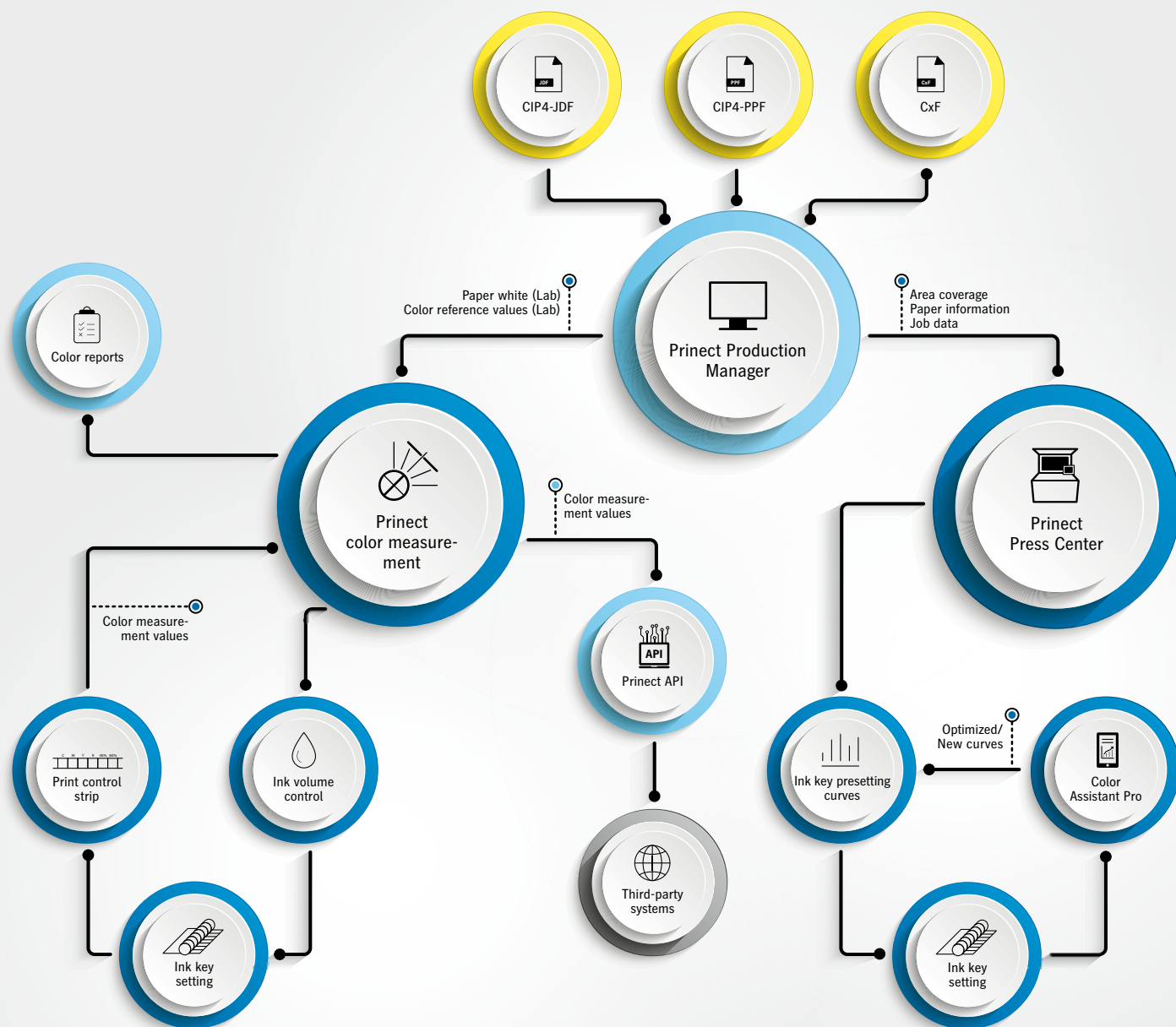
- Easy operation thanks to intelligent assistants
- Maximum flexibility and efficiency with maximum automation
- Production release within a few seconds thanks to optimized PDF inspection
- Autonomous production through Push to Stop
- Perfect integration into the print shop workflow as well as into the waste management
- Reduced set-up times due to automated loading of order data



➔ heidelberg.com/en/prinect-inspection-control

Integrated color management.

Color settings with Prinect.



At a glance: The Prinect color workflow offers the highest level of automated processes. Color Assistant Pro adjusts the color presetting in the background. The intelligent ink volume controller determines the best time for the ink zone adjustment. Color and paper databases ensure identical coloring on all machines. Prinect Production Manager integrates CxF data from the ink room, job data from any prepress, and exports color measurement values – everything is possible.



➔ [heidelberg.com/
color-measurement-systems](https://heidelberg.com/color-measurement-systems)

Launching true-color production. **Prinect Easy Control.**



Prinect Easy Control is the ideal introduction to spectral measurement technology – simple to operate and easy removal of the measuring device. This means that the high-precision spectrophotometer is also available for work outside the press. Prinect Easy Control is also the most economical system in its class. Job and color information are stored together and easy to recall for reprints at any time. The system is integrated in the press control station to save space. The operator can carry out checks without leaving his work station, and concentrate on print quality at all times. The measuring speed of up to 135 mm/second (5.31 in/sec.) ensures continuous productivity: an A3 sheet takes only four seconds to measure.

Prinect Easy Control:

- Integrated in the press control station
- Powered horizontal measuring device travel, manual vertical setting
- Sheet fixing with gripper magnets and rollers under the measuring device

Highlights:

- Measuring speed up to 135 mm/second (5.31 in/sec.)
- Common storage of job and color information for faster inking-up on repeat jobs
- Automatic detection of the print control strip saves time and eliminates the need for manual assignment
- Free positioning of the control strip on the printed sheet (e. g. lead edge, center, rear edge) for flexibility and material savings



➔ heidelberg.com/en/prinect-easy-control

High-performance quality assurance. **Prinect Axis Control.**



Prinect Axis Control® is the high-performance color measurement system for packaging and commercial printing. Set-up consists exclusively of assigning the inks. And even this is only necessary if something changes. The print control strip is automatically located and recognized on the printed sheet, as is the paper white. This means that Prinect Axis Control measures every job around three minutes faster than comparable equipment.

The maintenance-free LED lighting eliminates the need for costly lamp replacements. A strong vacuum and automatic tracking of the print control strip almost virtually eliminate measuring errors and therefore repeat measurements.

Prinect Axis Control:

- Operation and display via the Prinect Press Center XL 3/ XL 4 touchscreen
- Additional color deviation display on the Wallscreen XL
- Measuring head with powered horizontal and vertical travel
- Autofocus to compensate for different printing substrate thicknesses
- Space-saving micro print control strips can be used without restriction across all formats
- Netprofiler for colorimetric calibration

Highlights:

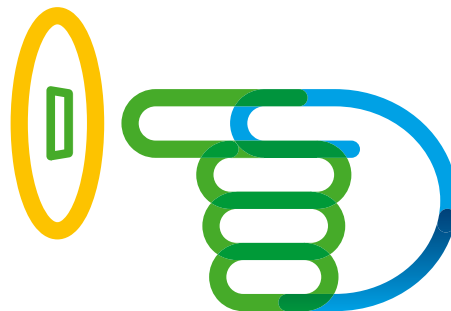
- Fastest spectrophotometer in its class, with a measuring speed of 200 mm/second (7.87 in/sec.)
- Automatic print control strip tracking, including sheets in an inclined position
- Maintenance-free LED lighting for long service life and cost savings



[→ heidelberg.com/en/prinect-axis-control](https://heidelberg.com/en/prinect-axis-control)

Set-up without stopping.

Prinect Inpress Control 3.



Our innovations for your success.

Discover the opportunities offered by industrial printing production of tomorrow. Push to Stop enables you to change orders fully automated for the first time in the history of offset printing – from the last to the first good sheet, right up until production starts.

The spectral measurement system Prinect Inpress Control 3, the only one of its kind in the world, finds the print control strips, the paper white, and the register marks fully automatically – and starts ink control without intervention by the operator. The color deviation ΔE , which is important in packaging printing in particular, is continuously displayed and adjusted on the fly, without pulling the sheets.

When exactly the required coloring is attained, the good-sheet counter starts automatically and the machine begins production. In addition, a tab can be inserted into the paper pile. Prinect Inpress Control 3 in combination with other automation components lays the foundation for Push to Stop, a feature for fully automated job changes without any interruption, from the last to the first good sheet and the start of production. In this way you shorten your set-up times in the long term and achieve unbeatable production speeds.

Prinect Inpress Control 3:

- Complete package for color and register control
- Operation and display via the Prinect Press Center XL 3/ XL 4 touchscreen
- Additional color deviation display on the Wallscreen XL
- Space-saving micro print control strips can be used without restriction across all formats
- Netprofiler for colorimetric calibration

Highlights:

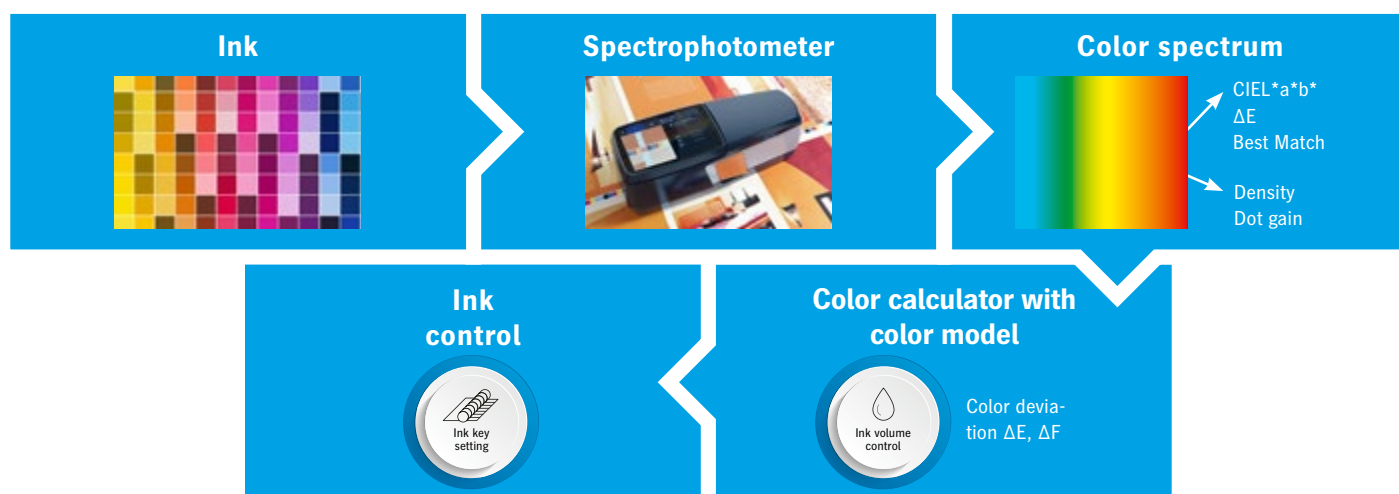
- Fully automatic set-up
- Quality Assist: automatic run start on reaching the good sheet
- Register control as standard
- Unique ΔE display during production without pulling sheets, for maximum quality runs



➔ heidelberg.com/en/inpress-control

When density alone is not enough. Hitting and holding colors.

Spectral measurement alone will not ensure optimum coloring during printing. What is crucial is the adjustment of the ink zones. Colorimetric control from HEIDELBERG is the only shortcut to the desired, standard-compliant result.



Modern color measurement systems work on the basis of a spectrophotometer. These systems have the advantage of seeing more, and therefore also supply more information than traditional densitometers. In addition to the colorimetric values CIEL*a*b* and ΔE, they also supply the density as an important control variable for the printer and the dot gain derived from it.

This type of ink control is crucial in ensuring that color measurement systems from HEIDELBERG hit the colors more exactly. This is because the adjustment of the ink zone motors is calculated from the colorimetric, i.e. visually visible, difference. In contrast, conventional color measurement systems derive the ink zone adjustment exclusively from the measured density difference.

You can see this difference. Because the color can look different even if the density is the same. Only colorimetric control enables you to stably control pastel tones or directly notice ink soiling right up to the accidental use of the wrong ink.

Another advantage is that colorimetric control enables you to measure a color sample once, and then immediately achieve the desired shade at the press. If the color sample or reference color cannot be produced with the ink in the ink fountain, this is indicated immediately – before the run is printed and can result in a complaint later from the customer. Three percent of all complaints are still down to the wrong inks being used!



How can we help you? Get in touch with us.

We hope this brochure inspired you. There is more we can tell you about how we could make your printing business more efficient and profitable.

If you are interested in **Prinect color and quality measurement systems** or would like to learn more about what we can offer feel free to **contact us**. We're only ever an e-mail or phone call away.

Reach us by email

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