INLINE COLORPILOT

Color measuring and control in the printing press

Sustained production efficiency

Inline measuring and control without the need to pull sheets saves time, improves color stability, reduces waste, and offers complete documentation of the production run.

The Inline ColorPilot measures ink density at full production speed without the need to pull sheets for inspection. The print control strip on the sheet is measured with the precision known from the ColorPilot.

Colored flash illumination enables the complete print control strip to be measured within three sheets – regardless of the number of colors printed. A high-resolution CCD sensor with polarizing filter which is insensitive to the influence of reflections from wet ink and scattered light is used for measuring. The RGB flash illumination corresponds with the color of the filters which are used for normal densitometrical measurements.

The familiar simple operation

The Inline ColorPilot reduces the printer's workload significantly and not only because it is not necessary to pull sheets. The continuous logging function can be used for quality control and also to analyze and resolve unjustified customer complaints. The system also impresses with the sturdy.

The benefits at a glance

- Significant time savings in every make-ready phase
- Faster regulation reduces the number of waste sheets
- Fewer interruptions to production mean reduced energy costs
- Constant quality because the ink-water balance is not disturbed (press is not stopped for measurements)
- Continuous logging over the entire run
- The fastest system on the market: only 3 sheets needed for a measurement
- Sturdy measuring technology since there are no moving parts
- Self-cleaning mechanism means low maintenance and cleaning requirements

IDS 2.5 FOR SHEETFED PRINTING

Next generation of inline measuring

With the IDS, a print control strip with 4 mm (2 mm) field height is measured inline highly dynamically and the printer is relieved completely. Besides regular measurement fields for up to eight colors, the print control strip can also contain special measurement fields for grey balance, trapping, printing contrast and doubling.

The measurement speed is adapted to the speed of modern machines, i.e. an entire BCMY measured value record is measured in less than a second. With this high information density, the IDS quickly
achieves very dynamic control for the generation of ideal printing results for press proof, production printing and also for starting up again after washing.

This high measurement speed is achieved across the entire width of the paper due to the parallel alignment of the densitometer. All format widths can be measured due to the modular design. Besides the high measurement speed, the modular alignment has further advantages compared to traversing system. Due to its stable design without moving parts, the system is not subjected to the usual wear due to high mechanical loads and is therefore trouble-free. Ease of maintenance is achieved by the system due to the remote control and the exchangeability of the measurement modules by the printing staff.

Densitometric measurements can be taken in compliance with standards with the IDS due to an appropriate measurement geometry and lighting or filters, i.e. absolute measurements are possible, which means also the adoption of specifications from the preliminary stage (CIP), for the control on the basis of real density values and the difference in density between wet and dry ink is eliminated by measuring with polarization filters.

High-performance LEDs in blue, green and red are used for lighting. The LEDs are highly efficient in terms of light output and almost entirely wear-free. A special CCD chip, which meets the conditions in terms of measurement precision, dynamics and temperature range, is used as receiver.

With the IDS a large step has been made towards process automation in printing due to process-conformant and high frequency density measurements.

Technical specification

Densitometric measurement

45°/0° – geometry

Polarization filters

LED-Illumination (RGB)

Density range 0.00 – 2.50

White reference: rel. paper white

Measuring patch (min. width x height): 3 mm x 2 mm

Speed range: up to 20,000 sheets/h
INLINE COLOR REGISTER FOR SHEETFED PRINTING

IDS integrates color register

The use of automation modules leads to a constant quality throughout the edition and savings on paper waste in the various operating modes, in bold printing as in start-up or changing the speed of the machine. Color register measuring system is defined as the accuracy of the overlay of the individual inks. Mark deviations are detected by ICP through the smallest measuring component, the printed register marks, and corrected via regulator using positioning devices. The smallest register marks are integrated in the color control bar and position measurements are carried out at the highest speed with the greatest accuracy. The ICP measures density and color register simultaneously. The positions of the register marks are determined automatically. The lateral, circumferential and diagonal registers are controlled directly from the press control console – fully automatically and simultaneously for all printing units.

Option: Inline Register for Inline ColorPilot

- Fully automated color and register makeready procedure
- No additional measuring device
- Control Bar with integrated register marks
- Controls lateral, circumferential and diagonal register
- Tolerance: 0.03 mm

Available as retrofit