100% absolute color measurement for printed products

Reduce make-ready times and decrease material consumption

Colors significantly define the face of a brand. Globally active brand owners, therefore, only allow very small color tolerances. ColorSTAR, a new module for the 100% print inspection system PrintSTAR from ISRA VISION, enables perfect color measurement – anytime and anywhere, ensuring that color specifications are adhered to. Printers benefit from a smooth, error-free production process and can acquire new clients.

In the packaging sector, printing with high color consistency is a significant quality criterion. Flexible packaging, body care products, labels, hygienic films, aluminum packaging for medication and food, packaging for liquids, security printing, and much more are all printed with brand slogans or safety information. A brand is often defined to a large extent by its color profile, which is why global brands only allow very small color tolerances. Printers require a reliable tool to check the color consistency during production and within the make-ready time.

The ColorSTAR module provides the PrintSTAR inspection system with absolute color measurement data. This feature enables continuous monitoring of the color accuracy of printed products on printing machines, without interrupting production. Color line scan cameras are combined with a spectrophotometer to enable continuous measurement and monitoring of absolute color values (L*a*b*) and color density. These measurements can be performed and repeated at any point in the process. As soon as printing commences, the measured color values are compared to the target specifications. The operator can adjust the color without having to stop the printing machine. ISRA technology allows the taking of real-time measurements, thereby reducing make-ready times by up to 60% and lowering material consumption. The system guarantees color consistency throughout the entire print batch in line with the brand owner's specifications. Manual measurements are no longer necessary.

Color deviations are prevented across the entire web width, and the customer's expectations are met. Any deviations that exceed a fully-adjustable limit value trigger an alarm or other actions. Rejects and waste products caused by color deviations are now a thing of the past. The system, therefore, makes a valuable contribution to sustainable production.

The solution is suitable for all substrates – even transparent ones – and operates at any printing speed. Measurement positions are tracked automatically and continuously for all materials, including thin and stretchable ones, without any additional equipment. The color consistency must be documented for the brand owners. With ColorSTAR, complete and automatic documentation of every roll is guaranteed. This enables efficient process and quality control. Deviations between target and measured values are recorded and displayed in an L*a*b* diagram.

Another distinct feature is scalability. Printers can use the solution that is tailored precisely to their requirements. PrintSTAR can be equipped with the ColorWATCH option – the perfect introductory solution for comparing colors with a master. If requirements increase, it is possible to upgrade to the ColorSTAR option at any time, enabling absolute color measurement at all times. Thanks to inline color measurement and well-documented color consistency, printers will be able to gain new customers in the demanding packaging sector.

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ColorSTAR, the color measurement module in the PrintSTAR inspection system from ISRA VISION, ensures absolute color measurement during the printing process and reduces make-ready times by up to 60%.
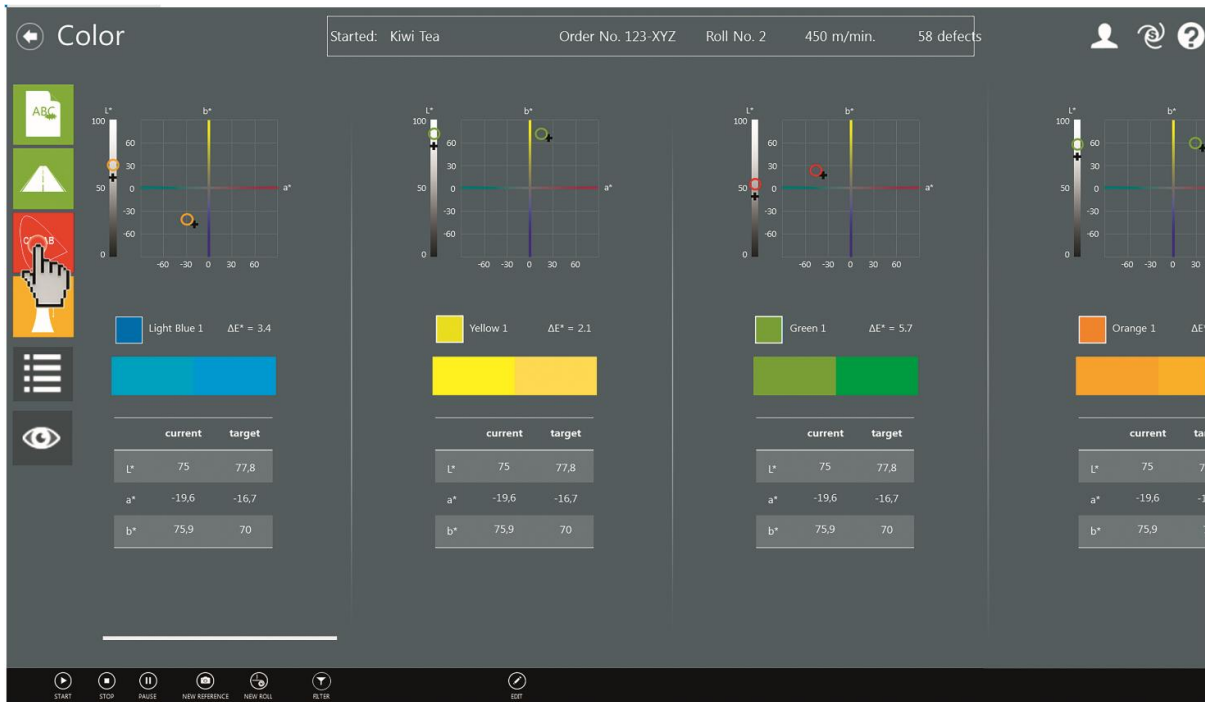
784-2.jpg
Right from the start of printing, the color values measured with ColorSTAR are compared with the target specifications. The operator can adjust the color without having to stop the printing machine.