DualSTAR sets new standards with a dual inspection solution for flexible packaging

Innovative market first: Combined inspection system for unprinted and printed web materials

Optimizing workflows in the production of flexible packaging remains a major issue for packaging manufacturers. High-performance inline inspection systems have already made a crucial contribution to maximizing quality and production efficiency. Now, the evolution has moved on even further. With DualSTAR, ISRA VISION offers a single system that combines the inspection of unprinted films, laminates, and coatings with that of printed materials for the first time.

The expression “Think twice – think dual” says it all: This groundbreaking dual-use inspection system appeals specifically to companies involved in converting for flexible packaging. The innovative solution takes an entirely new approach to combined inspection systems. DualSTAR combines the functions of ISRA’s SMASH and PrintSTAR inspection systems, achieving 100% quality control of unprinted films, laminates, coatings, and printed materials. Developed by ISRA VISION, the leading manufacturer of surface inspection systems, the combined solution ensures process optimization throughout the entire value chain. Now, the same inspection system can inspect both unprinted and printed substrates, for example, during rewinding, cutting, and lamination.

The surface inspection component in this dual-configuration inspection system is responsible for detecting and classifying all relevant defects during the production of unprinted web materials. The system is designed for the automatic inspection of transparent, opaque, dyed, and translucent materials and can even be used to find defects on the rewinder with outstanding results. In ongoing production of unprinted materials, the DualSTAR detects the tiniest defects, such as spots and holes, even at the highest web speeds. Typical defects in the lamination process, such as wrinkles and gaps, are also found reliably.
For printed products, DualSTAR performs continuous quality and process control of the printed image, lamination, and coating. Even at maximum speed, the high-precision system detects a wide range of print defects such as registration defects, color deviations, defects in decorative paintwork, cold sealing defects, toner errors, ink splashes, and missing print motifs. All print defects – either individual or repeated – are recorded and classified. The collected data is used to analyze the production process and thus improve the operations and decisions in the printshop.

**DualSTAR offers maximum system flexibility**

By detecting and identifying defects, the system ensures that production, waste, and quality goals can be improved. The dual inspection system’s intuitive operation and individual setting options are especially beneficial. DualSTAR offers an impressive switching function, allowing the user to move easily between inspecting printed image and unprinted material. As a result, the system precisely accomplishes what is needed at this stage of the production chain and provides perfectly classified data for process monitoring and optimization. It also achieves high process reliability in the final control step, e.g., in slitting – preventing expensive reworking. The innovative inspection system is also quick and easy to set up.

**Summary**

The technologically challenging processes of inspecting unprinted and printed materials have now been combined in a single inspection system for the first time. Through this unique market innovation, producers and printshops in the flexible packaging segment gain a completely new option. This remarkable technological leap also gives converters increased flexibility and efficiency in setting up their machine parks.

The dual inspection system enhances product quality and optimizes production processes effectively. It helps save costs in a highly competitive market and has a positive impact on revenue. Thanks to this high profitability, the innovative DualSTAR inspection system guarantees a fast return on investment.
DualSTAR from ISRA VISION is a new, unique inspection solution for converting that combines the inspection of unprinted and printed substrates in a single inspection system.
In ongoing production of unprinted materials, the DualSTAR detects the tiniest defects, such as spots and holes, even at the highest web speeds. Typical defects in the lamination process, such as wrinkles and gaps, are also found reliably.
For printed products, DualSTAR undertakes continuous quality and process control of the printed image, lamination, and coating. Even at maximum speed, the high-precision system detects a wide range of print defects such as registration defects, color deviations, defects in decorative paintwork, cold sealing defects, toner errors, ink splashes, and missing print motifs.