Users benefit from comprehensive data utilization, a high level of process transparency and the existing system hardware

Top quality in film printing – Yielding optimum results with a unique inspection combination

Printed plastic films can be found in many areas of day-to-day life. As food and consumer goods packaging, they affect purchase decisions; as decor and laminate, they adorn surfaces; and as medical or pharmaceutical packaging, they ensure sterile and safe storage. In light of the versatility of films, manufacturers place very high demands on these materials. The comprehensive web inspection solution for plastic films and printed products enables manufacturers to ensure optimum quality from the extruder to the printed end product – and thus a high level of customer satisfaction with the best results.

Global companies generally only permit very low tolerance values for their packaging and decor products, in order to maintain their brand quality and recognition around the world. Combining film and print inspection provides manufacturers of these products with an effective solution for achieving high process reliability and quality.

Quality assurance in film production...

From quality assurance on the extruder to checking for coating defects, optical inspection technologies scan films to find gels, spots, inclusions, and scratches down to the micrometer range. With the corresponding upgrades, inspection systems also check optical properties of plastic web products, such as shine and cloudiness. As a result, film
inspection captures all of the important quality characteristics that are essential for a perfect final product.

...meets comprehensive print inspection

State-of-the-art inspection solutions used in printing processes ensure the highest quality throughout the total chain of production. Established inspection systems control the different phases and aspects of all of the printing processes. The combination of a high-capacity web monitoring system and spectral color measurement help the machine operator to set up the register and color as quickly as possible. The system controls the correct specification of the predefined color requirements during the printing process, even at fast web speeds. Thanks to the „Plug & Inspect“-concept, the start-up-time of the system is reduced to a minimum. Inspection systems can also be utilized in the production of the materials to be printed, securing the best quality thanks to 100 percent optical inspection. In addition to plastic films, the system provides reliable inspection opportunities for metal, paper or cardboard surfaces.

Full control and transparency through combined technology

The data from film inspection gives documentation to the quality of the web, precisely broken down by sections. Film portions that do not meet the basic quality characteristics will not be processed any further. At the end of the film production process, quality engineers use the collected inspection data to review the desired quality standards before delivery. At a superordinate level, process engineers monitor the quality of the entire process by means of long-term data analysis. Thanks to
a LAN or Wi-Fi connection, they can directly access the results from both film and print inspection. This way, potential sources of defects can be discovered along the entire process chain. For example, if print inspection reveals defects that were not present during the inspection at the extruder, this may point to deficiencies in the transporting and handling of the finished roll. The result is a high level of process transparency and effective quality assurance for the entire value-added chain. Recent developments in the area of management intelligence software can be employed here to further simplify the process of analyzing data.

The use of data across technologies is the key to comprehensive quality assurance. When choosing technology suppliers, manufacturers of web products benefit from a partner that offers all of these technologies from a single source, unlocking additional benefits with regard to maintenance and spare parts service.
Quality is reliably inspected using optical inspection technology during the production of plastic films.

From quality assurance on the extruder to checking for coating defects, the inspection systems find gels, spots, bubbles (in the image here), and scratches down to the micrometer range.
ISRA’s broad portfolio for print inspection ensures short set-up times for new printing jobs and a high level of quality for the end product.

Detection of all relevant defects, such as hazing, streaks, register defects, splashes etc. in every printed image.