Perfect use of resources increases yield and maximizes customer satisfaction in the production of nonwovens

Not an ounce too much: Keeping an eye on the thickness of nonwovens

How uniform is the material distributed in the final product? The answer to this question helps manufacturers of nonwovens to do more than just optimize their use of resources. Mistakes occurring during production often show up as varying material thicknesses in the final product. To ensure uniform weight for nonwoven materials, a new inspection solution now controls the material distribution within the web, thus increasing efficiency and yield of production lines.

The application, often called uniformity monitoring, extends an already proven system: in addition to visual error detection, users receive reliable information on surface weight and uniformity of the material. Beyond basic weight, the system also checks for “cloudiness”, i.e., fiber distribution within the material. This allows for quickly detecting exceedingly thin or thick spots. Even more complex faults such as craters that occur during coating can be reliably captured with the inspection expansion. As a result, goods with deficiencies will not be processed or delivered.

Higher quality for the entire production process

This complement to fault detection ensures a high level of customer satisfaction, as optimum quality and surface weight allow easy and trouble-free processing. Comprehensive inspection of surface and homogeneity not only reflects the quality of the product but also the quality of the manufacturing process. The inspection for example, makes deficiencies in the rolls’ functionality easily visible: both roller tracks on the material surface and uneven material distribution are decisive indications that a roller might be defective. Employees working along the line can thus be quickly alerted to faults in the process and take appropriate action to avoid producing rejects.
Versatile expansions contribute to multifaceted inspection – for optimum production results

Extending existing inspection systems with additional features provides a cost-effective, fast and sustainable way to increase an inspection’s efficiency and thus the quality of the final product. A wide range of options is available for this purpose, including intelligent use of defect data while materials are being cut as well as so-called beyond inspection features. The latter utilizes defect data to enable of retroactively repairing and produced rolls thereby improving quality. Particularly interesting for nonwoven manufacturers among these extensions is the so-called embossing control. Intelligent LED along with software extension make a precise testing of embossed materials possible. Never has a modern inspection performance package been more versatile or powerful. Producing to the highest standards of quality thus becomes child’s play for manufacturers.
The new application reliably checks surface weight and uniformity of the material.

An expanded inspection system offers a quick and cost-effective way to increase sustainably the inspection efficiency and quality of the final product.