Premium quality can be reliably sustained with a new inspection expansion

Defect-free embossing of nonwovens – a new inspection solution captures even the smallest structures from designs to brand logos

Patterns and perforations on nonwoven materials convey an important part of a product’s promise of quality. That’s why manufacturers of brand products always look out for flawless embossings of their standard patterns and logos and consistently perfect perforation likewise. A new inspection expansion is now able to reliably control the quality of such material embossings ensuring the implementation of highest quality standards.

The quality inspection of so-called “embossings” and perforations of material surfaces adds a new extension to visual inspection systems, enabling visual detection of the pattern quality, embossings and punched indentations in addition to surface defects such as soiling. Both the presence and strength of element patterns as well as correct distances between them and their completeness are checked. Currently, only one provider on the market exclusively offers this specialized inspection technology for nonwoven products.

Defect detection and embossing control makes for doubled quality assurance without loss of time

The new inspection technology applies two different scans in sequence to the material surface in order to detect defects and control the embossings. The first scan initially inspects the surface for faults. After that, a second scan collects information on patterns and embossings. The software automatically distinguishes between defects on the material surface as well as in patterns or perforations. Thus, the system prevents inaccurate defect reporting from the outset. The system expansion accelerates both error detection as well as scanning of embossed fabrics to twice the speed, allowing for extended quality
assurance without requiring any additional time. Neither does the extended technology necessitate a new inspection channel. With an intelligent LED and a virtual channel set up by the software supplied, the expansion will supplement already installed inspection systems.

**Inspection expansions and beyond inspection – More than just quality control**

Expanding existing inspection systems offers a cost-effective and quick way to increase sustainably inspection efficiency and the quality of the final product. As a complement to defect detection, a wide range of new solutions is available, including the intelligent use of defect data for yield maximizing material cutting as well as so-called beyond inspection features. The latter utilize defect data to enable users to retroactively repair produced rolls, thereby improving their quality. For nonwoven products, an extension is also available for controlling the surface weight and coating thickness. Without an additional inspection channel, users receive information on the homogeneity of the material and the quality of the preceding production process. The total package of modern inspection performance has never before been more comprehensive and powerful.
The system expansion reliably differentiates between dirt and faults on the surface of the material and elements of the pattern.

Besides checking the pattern for faults, the inspection examines the presence and quality of the embossing – only a clearly recognizable pattern conveys the desired value.