

Germany's Mahlo GmbH is setting new standards in fabric inspection with WEBSCAN WIS-12, a new gray goods inspection system aimed not only at the textile industry, but also virtually any other industrial sector where products are manufactured or finished in web form. Industries like these are frequently plagued by situations in which faults in textiles or other materials are identified only after the underlying raw materials have been processed. Attempts at pre-process quality control consume vast financial and personnel resources. Even then, workers are unable to handle the task of visually inspecting fast-moving webs because the human eye is simply too slow to identify the kind of small but important defects that occur.

Mahlo GmbH Launches New Online Fault Detection System for Textiles and Non-Wovens

Mahlo's Webscan WIS-12 fault inspection system solves this conundrum with a high-resolution camera system capable of identifying and classifying faults as small as 0.25 millimeters in size at high processing speeds. The system also integrates extensive visualization and documentation protocols to provide cost-cutting technology that not only delivers a high ROI, but that also represents the only practical means of responding to demands for higher quality products at prices constantly subject to intense market pressures.

The Webscan WIS-12 uses the latest camera technology to inspect and evaluate online webs for faults. Depending on a customer's specific application needs, the system can be equipped with several cameras, so that extra-wide materials can also be evaluat-

ed for several types of faults, including point faults, length-wise faults, cross-web faults, selvage faults and seam faults. The standard Webscan WIS-12 system is designed to handle processing speeds of up to 120 meters per minute, with higher speed versions available on request.

Webscan WIS-12 is a modular system built around several key component groups including cameras, lighting, and software for controlling, visualizing and documenting the results of inspections. Here's a closer look at each of these modular building blocks.

Webscan WIS-12 replaces the human eye with ultra-fast, high-resolution line scan cameras that can identify the types of faults listed above with virtually 100% accuracy. The camera system, which can include many cameras

for inspecting exceptionally wide materials, processes the data required for visualization in 256 shades of gray.

What these cameras see depends in large measure on lighting conditions and here, too, Mahlo has left nothing to chance by giving users the ability to uniformly illuminate materials from edge-to-edge in a special enclosure that effectively blocks unwanted ambient light. With-

software is sure to follow. Here, Mahlo has given users of Webscan WIS-12 a comprehensive software suite that can be tailored to a customer's precise needs with respect to line-speed, lighting, fault detection and fault classification. The software is also capable of visualizing each individual fault, giving users the ability to analyze the source of the fault in order to take appropriate remedial action. And in sup-

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in this enclosure, webs can be exposed to either diffused incident or back lighting in several different forms and colors. Depending again on a customer's requirements, these light sources include not only the incident and back lighting already mentioned, but also LED or fluorescent light sources in the white, red, IR or UB spectrums.

Wherever optical components and hardware at work,

port of process monitoring, faults can also be stored in the system's integrated database. This customer-specific logging capability gives users to ability to document and recall at will every fault and associated gray scale image.

A variety of other features round out the list of technical highlights that distinguish the Webscan WIS-12 system. Topping the list are an extremely user-friendly



The Webscan WIS-12 can be combined with the Colorscan CIS-12. Shown here is Switzerland's Schoeller Textil AG, where the combo is used to scan for web and color faults down-stream of a washing machine with dryer.

touch screen control system, recipe management, automatic adjustment of light intensity, a digital I/O interface for alignment control, and support for several kinds of marking systems. In essence, these features combine with full support for several types of machine interfaces to give users the advantage of being able to perform fully automatic fault inspection without the need for personnel to be present. Faults can be automatically marked using colored marking systems, label printers or inkjet printers. And in order to give customers the fastest diagnostic support possible in the event of a problem, all of the Webscan WIS-12 systems are supportable via remote diagnostics.

According to Mr. Robert Daul, Managing Director of Mahlo GmbH and all its subsidiaries, the Webscan WIS-12 has long since left the drawing boards of the future to become a important tool in many well-known companies in the textile, non-woven and plastic industries. Because of its modular design, says Daul, the system has proven to be extremely flexible with respect to its applications. In addition to monitoring web quality during intermediate and final processing steps, the system has proven invaluable in detecting faults in several kinds

of ongoing processes including, for example, the processing of webs on stentering frames. By giving users the ability to quickly correct problems in the process chain, Webscan WIS-12 has proven to be a real cost-saver.

Many companies are also combining the Webscan WIS-12 with Mahlo's Colorscan CIS-12. This proven color metric measurement system, which uses a spectral photometer with 0°/45° geometry, makes it possible to continuously monitor on-line webs for coloration faults. Combining the systems complements the fault detection capabilities of Webscan WIS-12 with the ability to control color continuity and purity online. The resulting information helps reduce the costs of production and quality assurance while also boosting overall product quality.

Readers interested in learning more about the Webscan WIS-12 fault detection system are encouraged to contact Mahlo GmbH directly. ■

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