Controlling contamination: it starts at the beginning…

Uster solution for flawless fibers and quality webs in drylaid nonwovens

In medical, hygienic and cosmetic applications flawless end-products are essential. And that means contamination in the fiber raw material is not allowed. Uster Jossi Vision Shield N is the solution. It works right at the start, within the process line, eliminating even the tiniest unwanted particles and protecting nonwovens manufacturers from damaging claims.

Three big upcoming events are ideal platforms for Uster to present its quality assurance solutions for nonwovens, as well as spinners: Techtextil Germany and ITM in Turkey in June.



Uster Jossi Vision Shield N installed at fiber preparation for nonwovens

Optimization in fiber processes

Raw fibers from bales are opened and blended in the blowroom before carding, and this stage can significantly influence the quality of the end-product in drylaid nonwovens. Installing an Uster fiber cleaner in the line ensures highest level of control over contamination in the carded fleece – and consequently the end product.

The risk of contamination, such as small pieces of plastic, reaching the card is that it will be shredded into minute particles and then be incorporated into the material at web bonding. This kind of contamination would be disastrous in a hygiene or cosmetic application which comes into contact with sensitive human skin. W*ith Uster Jossi Vision Shield N integrated in their fiber processing line, nonwovens producers can avoid that risk.*

Uster Jossi Vision Shield N uses *imaging spectroscope technology to identify contamination in a fraction of a second, instantly removing it from the mass of good fiber material. Detection works across a much greater wavelength than conventional camera systems, so that contamination as small as a single hair and in the lightest colors is pinpointed.*

Proven contamination control for bleached cotton



Contaminated fiber

Uster Technologies has built experience and technological know-how over nearly three decades of fiber cleaning in spinning. Contamination is unwelcome in yarn, just as it is in fleece! Worldwide, 5,000 installations of

Jossi Vision Shield fiber cleaning systems in spinning mills underline Uster's success in ensuring contamination-free spun yarn.

The same expertise also works for bleached cotton. Producers of items for cosmetic, medical and baby care can meet the required zero-tolerance demand for any contamination fragments larger than 1 mm.

For best results in contamination detection, Uster Jossi Vision Shield N is integrated right after the opener in the blowroom. At this stage in fiber preparation, detection is enhanced, since the fiber tufts are open, preventing any small contaminants being hidden inside them.

Once identified, the contaminations are automatically ejected by the system, preventing contamination of the web. Some waste here is inevitable, but *Uster Jossi Vision Shield N* controls this by continuously measuring the speed at which the fiber tufts pass through. It then uses precision valves to time each ejection perfectly, so that only the unwanted contaminant is removed, with an absolute minimum of 'good' fiber being lost.

Fitting every line

Uster Jossi Vision Shield N is the result of surveys, close collaboration with international nonwovens companies and countless hours of field tests. Installation is easy, since the fiber cleaner's slim design fits perfectly into existing lines. The system readily copes with the pace of standard production environments – up to a capacity of 2,000 kg per hour.

Uster ensures that the system is seamlessly integrated into production lines, adapting the position of the fiber feed and the main components with the imaging spectroscopes, for optimum results. Customers can choose between widths of 1,600 and 1,200 mm, with specific solutions available for challenging environments and with any type of material. Stainless steel inserts, in areas which come into contact with the fibers, guarantee unmatched durability.

The future-oriented graphical user interface gives a quick overview of running performance in real-time, on a large high-resolution touchscreen, showing the most relevant data at a glance. User-friendly, quick and intuitive navigation makes data handling easy.

Challenge the experts

Managing quality with Uster Jossi Vision Shield N at the fiber preparation stage gives manufacturers the total confidence that only contamination-controlled products are delivered. Uster is ready to meet this challenge for the nonwoven community. Expert first-hand information will be available at

Techtextil Frankfurt, on the Uster booth B55 in Hall 12.0. The invitation also extends to ITM in Istanbul.