



Nonwovens: When quality is super-critical...

USTER® fiber cleaning systems prevent contamination in hygiene and cosmetic applications.

Yarn spinners already understand the importance of preventing contamination in their products. A total of 3,500 worldwide installations of Jossi fiber cleaning systems – now produced by USTER – is proof of that. The USTER® JOSSI VISION SHIELD solutions are highly effective at removing even the smallest contaminants, including polypropylene. For nonwovens producers, however, the risk of contamination is possibly even greater: in medical and hygiene applications, for example, quality standards are super-critical and zero contamination is essential.

The contaminated yarn is one of the spinner's biggest headaches, potentially leading to customer claims and rejects when synthetic particles such as polypropylene (PP) remain undetected in cotton until the fabric reaches the dyehouse. Today, the range of USTER® JOSSI systems is proven to deal with this

problem with unbeatable effectiveness, detecting and removing foreign matter from cotton at the spinning preparation stage.

Uster Technologies acquired Jossi AG in 2013 and now applies the USTER® JOSSI VISION SHIELD 2 and USTER® JOSSI VISION SHIELD T systems, using multiple detection principles to eject all polypropylene particles, however minute. The finest white PP contamination is reliably and efficiently detected with the USTER® JOSSI MAGIC EYE in combination with the USTER® JOSSI VISION SHIELD. Practically all types of foreign matter, including polypropylene and polyethylene, are eliminated by USTER® JOSSI MAGIC EYE, with a minimum of waste.

Special challenges for nonwovens producers

Compared to yarn spinning, nonwovens products and processes bring

some special challenges and even more demanding requirements. Imagine, for example, a scratchy remnant of polypropylene in a make-up removal pad...or any kind of contamination in hospital products such as absorbent cotton, alcohol swabs, or nonwoven gauze. Such problems would be totally unacceptable. Not surprisingly, markets for medical and hygiene products in the USA, Europe and Asia are extremely quality-oriented.

With developments in synthetic fibers, there was a trend about 25 years ago for nonwovens applications to switch from pure cotton to synthetics. Initially, consumers preferred the dry and light texture of synthetic fibers. In the last decade, however, many applications are seeing a return to pure cotton as the favored option, particularly where allergic issues such as skin reddening and irritation are possible.

Manufacturers of nonwovens for



these demanding end-uses now require an efficient contamination control system, guaranteeing a zero-tolerance standard – for defects bigger than 1 mm – in their products. In nonwovens, fiber cleaning is the only way to control contamination – unlike in spinning where yarn clearing can make a final check at the winding stage. Product quality in nonwovens, therefore, depends absolutely on the efficiency of the fiber cleaning system, which makes an investment in the USTER® JOSSI VISION SHIELD system a logical step.

Nonwovens: Big in Japan

Most of the machinery for nonwovens hygiene products is made by Japanese companies and Japan itself plays a leading role in manufacturing goods for medical and cosmetic applications, as well as food packaging materials. “Japan is growing as a market for USTER® fiber cleaning systems, thanks to these nonwovens applications,” says Oswald Baldischwieler, Product Manager Fiber Cleaning within Uster Technologies. “The combination of USTER® JOSSI VISION SHIELD and USTER® JOSSI MAGIC EYE supports the manufacturers to control contamination continuously at a high level.”

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The importance of the nonwovens sector for USTER® JOSSI systems is demonstrated by the company's presence at the forthcoming INDEX 2017 event in Geneva (booth no. 4418), the largest global meeting point for the nonwovens market. USTER believes that its technology which is already well known and appreciated in cotton spinning will attract wider interest at the exhibition from manufacturers of bleached cotton and other quality-critical nonwovens products. “With USTER® JOSSI VISION SHIELD and USTER® JOSSI MAGIC EYE, the whole production is checked, for every category of contaminants including synthetics,” says Baldischwieler. “Nothing can escape the detection power of these systems.” ♦



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