

Q&A: AUTEFA SOLUTIONS

Setting new machinery standards

Autefa Solutions' exhibit at Techtextil focused on its economic and energy-efficient nonwoven machinery portfolio. Managing director, **André Imhof**, explains more

Q. What developments did Autefa make at Techtextil 2017?

A. As nonwovens producers face more competition, they are looking for reliable and economic machines. The best total cost of ownership (TCO) is the key to success. We are seeing a significant number of customers that hesitate, due to higher prices, to replace existing machines or invest in new machines. For all these customers, Autefa Solutions introduced its new "LineONE" concept. LineONE is technology which operates at a very high

level, but we set new standards with an attractive cost-to-performance ratio. With the Crosslapper UnilinerONE, we supply a high-performance machine based on the successful Crosslapper Topliner. Optimised infeed speeds of the carded web, layering precision, layering speed of max. 80 m/min and reliability are the main benefits of the Crosslapper UnilinerONE. The Needle Loom Fehrer StylusONE is a compact needle loom for all needling applications up to 1,800 g/m². With a maximum performance of 1,200 strokes/min, the Needle

Loom StylusONE distinguishes itself through productivity, guaranteed longevity and maintenance-free gear boxes.

Customer demands are driving Autefa Solutions' new developments in nonwoven cards. The Web Master FUTURA card is specially developed and designed for high production speeds, tailored to the worldwide requirements for nonwoven Lines. The focus of the new card Web Master FUTURA is to improve the cost factor of maintenance. The Easy Opening System is placed on high precision linear bearings,

so after closing, all rollers are exactly in the same position as before. The different parts of the card means the feeding group, first main cylinder, transfer group and doffers are each placed on a separate carriage. The carriages are connected to each other by one screw on each side forming a 'train', allowing easy and full access for cleaning and maintenance.

Q. What was the focus of your exhibit?

A. Additional to reliable and economic machines, energy efficiency plays a big part in Autefa Solutions' portfolio. Our spunlace technology and the Energy Recovery (EnRec) systems leads the way to substantial energy savings.

Q. Why is this so important to your company and what challenges does it bring?

A. Hydroentanglement is one of the standard entanglement processes for nonwovens. Compared to other mechanical entanglement processes, it allows high production speeds beyond 300 m/min. Certain product properties e.g. softness may not be reached by other processes. As a result, the spunlace process is the ideal method of producing nonwovens for the strong growing wipes or cotton pads markets. We analysed the cost structure of hydroentanglement and decided to focus on the entangling part and the drying process. Our new V-Jet injector decreases the distance between nozzle and injector bottom from a range of 15mm–25mm to 0.5mm. The V-Jet system led to significantly higher tensile

strength at the same entangling water pressure than the standard injector. In other words, the same tensile strength can be reached with lower water pressure. The reduction of water pressure is in the range of 20%. In addition, water consumption is reduced by 10% when using the same nozzle diameter and pitch. This leads to a total energy saving of 30% when using the V-Jet injector.

The Square Drum Dryer SQ-V combines the small footprint of a drum dryer with the performance of a belt dryer. The nozzle system in the Square Drum Dryer SQ-V distributes the airflow, in terms of speed and temperature, uniformly throughout the whole working width, providing best spunlace web and surface quality results.

Q. What other trends are you witnessing in the spunlace market at present?

A. Worldwide, we are seeing general customer demands for energy savings, higher production speeds, wider machines and the need to improve embossing functions. As a supplier of complete thermobonding lines, air through thermobonding ATB lines and spunlace systems, Autefa Solutions combines bonding and embossing/perforation in a new in-line process. The thermobonding oven and the new embossing unit are connected, which makes high delivery speeds of up to 200m/min now possible. This continuous process revolutionises the traditional heat embossing process, increases production speed, minimises downtimes and optimises cleaning processes. During the upcoming months,



Autefa Solutions' Card Web Master FUTURA

a lab machine will be available at Autefa Solutions Switzerland. We can produce samples with different embossed and perforated patterns.

Q. Does Autefa plan on targeting any new application areas in the next couple of years?

A. Additional to our Nonwovens Competence Centre in Linz, Austria, we will open this year a new area where we can process "advanced fibres", like carbon, glass or aramids. We have co-operations with customers, institutes and other suppliers in this advanced fibre market. Our joint R&D efforts will result in new processes and machine solutions soon.

Q. Finally, how does it benefit your company exhibiting at Techtextil?

A. It's the 'who's who' of technical textiles in Europe. Machine suppliers and textile producers come together under one roof. Networking and exchange is easy and valuable for both. It's a must to be at this show.

www.autefa.com



Autefa Solutions' Needle Loom Fehrer StylusONE



André Imhof