Rethinking energy with Monforts in Shanghai

China continues to lead the world in the production of textiles and investments in textile machinery, making ITMA Asia + CITME, which takes place in Shanghai from November 19-23, a must-attend event for Monforts.

Monforts Head of Denim Hans Wroblowski.

“While remaining the world’s largest producer of clothing and footwear, China has also been the largest consumer of these products since 2021,” says Monforts Head of Denim Hans Wroblowski. “The country now accounts for 25% of the global clothing and footwear market, with the USA in second place with a 21% share and Europe with a 20% share. This suggests a significant change, since the biggest market for China’s products is now its own. European machine builders like Monforts, however, have much to contribute to ensuring all markets continue to grow sustainably, and we are looking forward to many fruitful discussions in Shanghai.”

Efficiency

At stand C07 in Hall 5 at the Shanghai exhibition, Wroblowski and other Monforts experts will be on hand to explain the advantages of Montex stenters for essential drying processes in terms of production throughput – and especially in energy efficiency and resource savings.

“Because finishing is a particularly energy-intensive part of the textile production chain, it is exactly where convincing results can be achieved and we have developed a wide range of energy-saving measures,” says Wroblowski. “This not only includes state-of-the-art machine chamber insulation, but also heat recovery systems.”

The Monforts Universal Energy Tower, for example, is a free-standing air/air heat exchanger that achieves energy savings of up to 25%.

The Monforts Energy Tower can be retrofitted to existing ranges to achieve significant savings

The ECO Booster heat recovery system with integrated automatic cleaning is meanwhile directly integrated into the chamber design of the Montex stenter and enables energy savings of up to 35% depending on the application. One ECO Booster module is sufficient for stenter ranges with up to eight chambers.

Both the ECO Booster and the Energy Tower can also be retrofitted to existing ranges, in order to make production more resource-efficient and economical, yet without having to invest in a new machine.

“If anything, today’s high energy prices are only encouraging investment, because for our customers, energy costs can account for up to 70% of production costs, so there is great demand for ways of saving money,” Wroblowski says. “This also helps in terms of global warming and reducing carbon footprint, of course. We see the energy crisis of the past two years as an opportunity because it is leading to an energy consumption rethink in the textile industry.”

Monforts Montex stenters are already the industry standard for the fabric finishing industry.

Denim

Two major areas of specialism for Monforts technologies are in denim production and the finishing of a wide range of technical textiles.

Over 900 Monforts Thermex hotflue dyeing systems are now operational in the main textile producing countries, with around 150 of them already reaping the benefits of the Econtrol® and Econtrol®T-CA processes.

Econtrol® is a continuous process for the dyeing of woven cotton and cellulosic fabrics in which reactive dyestuffs are fixed into the fabric in a one-step dyeing and drying process with a controlled combination of steam and air. The entire pad-dry process takes just two-to-three minutes at a temperature of between 120-130°C and a relative humidity volume of 25-30%.

The latest innovation for denim manufacturers is the CYD yarn dyeing system which integrates new functions and processes into the weaving preparatory processes – spinning, direct beaming, warping and assembly beaming, followed by sizing and dyeing – in order to increase quality, flexibility, economic viability and productivity.

“Differentiation is the key in the highly-competitive denim fabrics industry, whether that is through the successful incorporation of new fibres, accommodating new fabric constructions or exploring the many options for how to treat them at the finishing stage, to gain a market advantage,” says Wroblowski. “These latest Monforts lines allow users to be extremely versatile and respond quickly to market demand, while also allowing very short production runs.”

Technical textiles

The Montex®Coat coater meanwhile serves a very diverse number of markets and enables full PVC coatings, pigment dyeing or minimal application surface and low penetration treatments, as well as solvent coatings to be carried out. Key applications include tents, tarpaulins and awnings, black-out roller blinds and sail cloth, automotive interior fabrics and medical disposables.

The Montex®Coat coater serves a diverse number of technical textile markets

“Technical textiles are a key pillar of the Monforts production programme and we are always exploring potential new applications with our customers,” says Wroblowski. “There remains huge potential for the expansion of this market in Asia and we will be happy to discuss the possibilities of this very flexible technology with you in Shanghai.”

Econtrol® is a registered mark of DyStar Colours Distribution GmbH, Germany.