Latest THEN Airflow developments at ITMA 2023

Fong's Europe has constantly evolved its dyeing systems based on the Airflow principle for achieving excellent dye penetration and uniformity while minimising colour differences between different areas of a fabric.

At ITMA 2023 in Milan from June 8-14, the company will introduce its latest THEN Synergy Airflow and THEN Airjetwin machines which exploit the principle to provide high-quality, efficient and eco-friendly dyeing processes for a variety of fabrics.

Experience
"THEN introduced its first machines with Airflow technology in 1980 and since then we have had wide experience of pretreating and dyeing with Airflow transport systems on all kind of fabrics," says Fong's Europe Director of Sales and Marketing Richard Fander. "Our team of engineers has collected data on dyeing processes, results and consumption figures for years and constantly makes use of this accumulated know-how to optimise the processes of our customers.

The THEN Airjetwin

"The THEN team understands Airflow dyeing processes and technology based on it guarantees the lowest liquor ratio on round shape machines. The transport of fabric by air reduces the liquor ratio compared to every kind of hydraulically driven transport system."

He adds that while not every fabric can be dyed and treated on Airflow machines with the same handle and appearance as on hydraulic round shape or long shape machines, where it is applicable, it can lead to significant savings of up to 35% in water, 50% in salt, 20% in dyestuffs and 30% in process time.

Machine mix

“The need to reduce energy and water consumption worldwide is much higher than in the past and a significant number of the overall processes in a dyehouse can be successfully shifted to Airflow machines,” Fander says. “We will see more of a mix of different machines and technologies in the dyehouse than in the past and while this may lead to complexity in a company’s machine portfolio, it will ultimately result in considerable cost savings. A higher volume of data can be managed, but the higher environmental impact of the old routines will soon become a competitive disadvantage.”

Features

The THEN Airflow dyeing machines have several innovative features, including several parallel functions for reducing process time. The VPR system shortens the rinsing time and water usage and the well-proven robust and homogeneous spraying device in the nozzle ensures a uniform dyeing in the shortest process time. The very short liquor ratio also reduces the use of salt and chemicals.

THEN Synergy Airflow

THEN Airflow systems also have a unique dyeing process control system that allows for precise control over dyeing parameters such as temperature, pressure, and chemical dosing, ensuring consistent and high-quality results.

Homogeneous distribution of the air in the machine is a must to get equal dyeing and turn times. The design of the Airflow blower, its drive and the whole piping guarantees an equal air pressure and air volume in the complete system, even for big multiport machines. It blows up the fabric and avoids crease marks. Additional options like spray ring in front of the nozzle and additional liquor application in the nozzle now allow Airflow dyeing on nearly every kind of fabric.

Additionally, the Synergy Airflow dyeing machine has a user-friendly interface that allows for easy operation and monitoring of the dyeing process.

“Overall, the THEN Synergy Airflow dyeing machine is a reliable and efficient solution for high-quality and eco-friendly fabric dyeing,” Fander concludes.

Fong’s Europe is at stand B106 in Hall 18 at ITMA 2023.