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Lotus
TEKNİK TEKSTİL A.Ş.

Collaborative innovation in action:

How SPGPrints and Lotus are driving each other forward

Printing tomorrow.

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In the highly competitive non-woven manufacturing market, differentiation is everything.



As manufacturers typically use similar machinery, finding new and innovative ways to gain a competitive advantage is difficult. Competition from alternative products and producers means margins are tight and each organisation must make production as efficient as possible. Companies are exploring new ways to lower material and production costs. This is all set against the backdrop of increasing regulation and growing customer interest in sustainability.

These pressures are things that Lotus Teknik Tekstil A.Ş. (Lotus), Turkey's only producer of high-quality spunlace non-woven fabrics, understands completely. Lotus produces premium products for a range of sectors, including cosmetics, healthcare and domestic cleaning. The company invested in an advanced facility in 2016 to move beyond standard production, focusing on efficiency, sustainability, and strategic innovation, which enabled Lotus to survive and thrive.

Volkan Yavuz, Factory Manager at Lotus, is leading the company's drive for continuous improvement, ensuring it exceeds industry and customer standards. His sector knowledge and strategic vision played a key role in the company's decision to partner with SPGPrints.

The partnership with SPGPrints enables Lotus to continue delivering superior woven materials in a rapidly changing and volatile market. What follows is the story of a successful collaboration between Lotus and SPGPrints, resulting in a pioneering innovation that continues to offer tangible advantages to both organizations.

Challenge

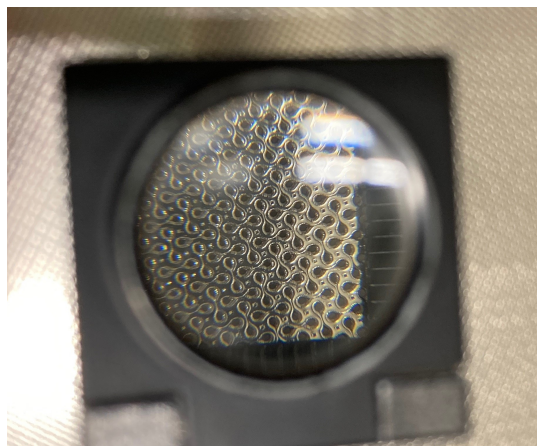
The search for smarter and more sustainable production

Like other production houses, Lotus relied on proven processes and equipment to produce its non-woven fabrics. But the pressures of the modern market – including rising energy costs, sustainability expectations, and a crowded marketplace with high price sensitivity – triggered Lotus to search for alternatives.

"Everyone's using similar materials and the same kind of machinery," Volkan said.
"There are a few differentiation points. One is the fiber differences, including the blends
Another is the operator's experience and efficiencies in manufacturing."

Non-woven production is highly energy-intensive, requiring large amounts of electricity and pressurised water. Lowering the amount of water and energy used was a key priority for Lotus because leaders understood that improving manufacturing efficiency could help the business unlock savings while making sustainability improvements that benefit both customers and the planet.





Volkan and the Lotus team explored a variety of potential solutions, including adjusting processes, but these had an impact on its products. "We cannot change the product characteristics," said Volkan. "At the end of the day, that's the most critical point because we operate as a contractual and private label producer."

To support their search, the Lotus team developed a list of essential criteria for an innovation. Any new solution had to:

- Reduce energy use
- Integrate seamlessly into existing workflows
- Align with their sustainability goals

As a long-term partner, SPG Prints continually invests in new tools, technologies, and processes that help organisations improve their performance. Lotus's account manager approached Volkan with an exciting proposition: to be one of the first customers in the world to trial Jade, a new, eco-efficient screen for non-woven production.

"We talked with Tamer (SPGPrints customer account manager) and explained we have to decrease our energy consumption," Volkan said.

"SPGPrints approached us with a solution and asked us to test it."

Solution

Breaking new ground: The first Jade trial in non-wovens

Lotus became a test site for Jade, SPGPrints' high-efficiency hydro entangling printing module. The revolutionary shell for non-wovens significantly reduces the need for high water pressure, a move that directly translates into energy savings and a reduced carbon footprint.

"Working with SPGPrints to implement Jade has been a true collaboration with a partner, not a salesperson or supplier."

Jade was a new technology for Lotus. Change can be challenging for businesses with established processes and production methods, but it's essential that businesses innovate, said Volkan. "We recognised it (the Jade screen) could be a good opportunity for us to go one step further for the competition – and potentially gain an advantage."

This was the first time Jade was used in a non-woven factory. At the outset, both parties anticipated a learning curve. What followed was an open and adaptive process with teams on both sides engaging in constant communication. "When we find a problem, we then try to find a solution for this problem together," said Volkan. "Working with SPGPrints to implement Jade has been a true collaboration with a partner, not a salesperson or supplier."



JADE

The technique behind Jade explained:

In the spunlace process, fiber entanglement doesn't occur with the initial passing of water through the web. Instead, it begins when the water rebounds off the screen and passes through the web a second time. By optimizing the patterns on the Jade screen, we enhance this rebound effect, allowing for efficient entanglement at lower water pressures.



Result

A 15% drop in water pressure boosting sustainability goals

In collaboration with SPGPrints experts, the Jade screen has been implemented in one of the two lines in Lotus' factory. Jade was initially tested for several days on a real production line to explore its potential and identify any problems. "At that time, we decided to use Jade as a standard shell in our production line," said Volkan. "Since then, we have been operating continuously with Jade for three months."

Experts from SPG Prints were available to support the tests and implementation, Volkan said. "We had to explain to our operators that the screen (Jade) operates at lower pressures on the first day. After that, they were producing orders." There were very few issues in integrating Jade, and any that were identified were quickly solved. "It was very easy for our operatives to implement Jade. They're a highly experienced team and understand how to test and adjust equipment to create the best products," Volkan said.



The results of implementing Jade have been both immediate and significant for Lotus.

"Jade allowed us to decrease the water pressure by 15% for the entangling process," Volkan said.

This translates directly into cost savings and sustainability gains.

The incredible efficiency savings are helping Lotus to cut costs and lower its carbon footprint.

This is vital as the company is under pressure from customers and regulators to cut its energy

usage to protect the environment. "Decreasing our carbon footprint and legalization are very

important things to us at Lotus," Volkan said. "Each week, at least one or two customers visit and

ask us to show them what we are doing to become more sustainable."

"Decreasing our carbon footprint
and legalization are very important
things to us at Lotus"



The future

A partnership of mutual growth

The success of the Jade screen and its ease of integration into the Lotus production line demonstrate what can happen when a business is bold enough to take a chance. The failure to innovate creates a culture Volkan describes as “company blindness” – something he is keen to avoid.

Unlike many manufacturers in the nonwoven industry, which often restrict access to protect proprietary processes and fear that trade secrets will be leaked, Lotus welcomed SPGPrints into their facility.

This partnership approach has been crucial to implementing Jade and unlocking its benefits for the business.



"My belief actually is that if you make a partnership with suppliers, you have to let them know about difficulties in the company," said Volkan. "This company can sometimes see what you cannot see – and find solutions."

Jade is a significant step in the collaboration between Lotus and SPGPrints. There are also some new development points, including patterns and machine parts that SPGPrints and Lotus are developing. "When working with SPGPrints, we know that there is a responsible person. If there are issues, they will help to solve our problems," said Volkan. "They have experience from different textiles and the textile industries and can use these insights to develop creative solutions for us."



Recap and conclusion

Jade is helping Lotus to operate more efficiently, reducing the impact of its energy-intensive production processes on the planet. The relationship involves more than SPGPrints acting as technology and shell provider, but as a partner. "It's not the end of the collaboration, I think it's at the beginning," said Volkan.

In addition to improving its sustainability credentials, Lotus is positioning itself as a leader in the non-woven sector. In a commodity market, where cost-cutting is crucial, Jade is helping Lotus carve out a competitive advantage. They're doing this in a positive way, using new technologies that reduce energy usage and lower costs – all without compromising the quality of products.

"It's a partnership that's continuing to deliver benefits for all of us."



Facing a non-woven production challenge?

Looking for a way to stand out in the non-woven market? Now's your chance. Get in touch with our specialists and let us help you drive innovate.



Talk to our specialist Tom

