Right raw material, optimized production…

Uster solutions combine to deliver practical benefits in processes and profits

The unique Uster combination of quality measurement instruments with sophisticated software is at the heart of an evolution in spinning. FiberQ is the essential starting point to unlocking maximum profits, through absolute raw material consistency. And Uster Quality Expert completes the picture by monitoring quality throughout the production process. By combining these two systems spinners can achieve the full benefits in terms of both quality and profitability.

Positive feedback from leading mills worldwide confirms the advantages with facts and figures from practical mill experience. Accurate collection and analysis of complex data is applied at every stage, with Uster Quality Expert and 360Q with Fiber Q bringing added value and optimized processing throughout the mill.

Stratos Fragkotsinos, Uster's Head of Product Management Mill Management Solutions, explains the importance of Fiber Q and Uster Quality Expert working in harmony to improve the whole mill operation: "Without an optimum raw material management solution it is very difficult and expensive to achieve production of yarn with the right quality and quality consistency," he says. "On the other hand, even the best raw material solution will not achieve its maximum potential without reliable and consistent in-mill production processes."

The power of software solutions

On the road to Industry 4.0 it's clear that software is an increasingly important driver of progress in quality control. That's especially true in spinning, the most complex of textile segments, with its multiple related process stages. Spinning firms are also the ones with the greatest need for reliable data collation and analysis if they are to operate profitably. For example, raw material accounts for up to 75% of production costs for spinners, so proper management and minimized waste are essential. It makes sense to partner with the leading expert in data gathering and analysis to optimize this vital element.

Uster's vision was to extend its Think Quality concept across the wider textile community, and a first step was the launch of Quality Expert. A standalone version was launched as a software solution in 2020, with the same features as the system hosted in Uster Tester 6. Uster Quality Expert – now known as UQX – delivers uncompromising standards in ultimate analysis, unique Value Modules and fault prevention mechanisms.

These UQX benefits support optimized settings, minimizing outliers with immediate and reliable notifications. And these optimum setting will have a direct impact on waste levels.

"Continuous in-process monitoring via the value modules of UQX will ensure trouble-free production, since variations in the raw material side are already at a minimum thanks to Fiber Q's efficiency and reliability," says Fragkotsinos.

Mill feedback reports

Quality Expert offers various Value Modules. Yarn Prognosis helped an Indian spinner to solve pilling problems and to restore quality quickly, avoiding losses. UQX enabled analysis of critical issues and guided notable improvements.

One of Pakistan's best-known spinning brands sought the ultimate solution to optimize production routines for assured quality and managed costs. The company's COO is convinced that improving the product quality has automatically improved productivity in the mill. He asserts that, even where cost is regarded as more important than quality, the best way to reduce cost is to improve quality.

Installing UQX proved to be a wise decision for this mill, with its fast and reliable data analysis enabling improvements to processes. It was easier for the mill to identify and prevent quality outliers, as well as troubleshooting machine and component issues – and controlling contamination. The overall verdict was that significant improvements in quality consistency, productivity and profitability were achieved, thanks to analysis by Uster Quality Expert.

It's not only in making 'good' quality 'better' that UQX scores. As evidence, an Indian spinner with yarn quality previously classed as 'average' reports that its quality level is now much higher thanks to Uster Tester 6 with UQX. This mill achieved its dual goal of enhanced market position and higher profitability.

At another spinning mill in India using Fiber Q, UQX was also checking overall production, identifying outliers and enabling setting optimization for every process step. This led to a waste reduction of 2% and a significant improvement in the IPI level (-25%).

The full story, as well as other practical cases from customers, is available on the Uster website at www.uster.com/references.

Practical proof

It is well proven by practical trials and mill experience that Uster can now boost profitability in spinning mills with FiberQ as the unique raw material management solution in combination with UQX for full in-mill process optimization.

Says Fragkotsinos: "Consistent and optimum input combined with reliable quality monitoring are the key factors for success. It is obvious that together FiberQ from 360Q and UQX can enable maximum profitability for spinning mills."