

Wugang Yunlong Textile Co. Ltd. New benchmark plant for advanced manufacturing



Wugang Yunlong Textile Co. Ltd.
North Industrial Park Wugang City
Henan Province China

Intelligent spinning operation benefits from Uster Quality Expert

In the Chinese province of Henan, a leading textile company is starting production at a new 80,000-spindle plant which is destined to be a benchmark for advanced modern manufacturing.

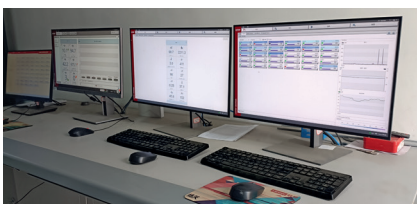
The Wugang Yunlong Textile plant will have an automated and intelligent compact spinning line, supported by 21st Century technology including the textile 'Internet of Things', with Uster Quality Expert and other advanced features such as integrated smart chip tracking.

Wugang Yunlong Textile is an established leading player in China's textile industry, part of Wugang Yunlong Group. Existing production facilities total 180,000 spindles, staffed by more than 400 employees. The new state-of-the-art additional spinning mill is intended as the standout industrial operation in the Henan textile region.

Currently, Wugang Yunlong has an annual output of about 20,000 tons of compact-spun cotton yarn, in the count range Ne 32 to Ne 60. Sales revenues total 500 million RMB per year, with major export markets including Asia, Europe, America and Africa.

For the new plant, Uster Quality Expert delivers the essential quality and production controls required to satisfy customers in increasingly demanding global markets. According to Mr Wang Ping, General Engineer at the company, the speed at which the Uster system identifies potential issues, and guides corrective actions, is vital: "With Uster Quality Expert, we can grasp the changing trends of product quality parameters in real time, so as to take preventive quality management measures and improve the stability of quality," he states. "The analysis of correlation reports can help optimize maintenance, replacement parts cycles, workshop temperature and humidity standards and the efficiency of operators."

The overall effect is improve production efficiency in several ways, while also reducing costs. These benefits also contribute significantly to business success and overall profitability, Mr Wang Ping says.



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Interview with Mr Wang Ping, General Engineer

In creating its advanced modern manufacturing facility, Wugang Yunlong Textile is reporting great advantages from the Uster Quality Expert for real-time monitoring, controlling and optimizing quality. The effects of this major improvement are also reflected in better production efficiency and reduced costs in every aspect, including labor costs.

Overall, the company's business has benefited both in terms of performance – and importantly in customer satisfaction.

In this interview, General Engineer Mr Wang Ping gives a detailed account of the impact Uster Quality Expert has made.



How is the market situation currently?

At present, markets are generally tough. Customers are asking for higher and higher yarn quality parameters. As well as the good physical indicators of yarn – like CV, IPI, hairiness, and strength – they also demand attention to end-use characteristics, including fabric appearance, pilling and weaving performance.

What issues were you seeking to improve?

Customers demand stable product quality, which requires prompt action to find and solve quality problems in the yarn production process. For example, we needed to identify and deal with poor CV values and low tenacity in the yarns, in order to maintain the consistency and stability of product quality. On the other hand, where we noted machine and spindle positions with off-quality in the process, it was necessary to repair them urgently, to improve the efficiency and output of machines and reduce production costs.

What outcome resulted from your trials?

The Uster Quality Expert was able to analyze the efficiency, output, and cut levels of each machine and of each spindle in the winding process, allowing us to pinpoint problematic machines and spindle positions quickly and guide personnel to corrective actions. This was possible through the Uster Quality Expert's monitoring of data on rogue and idle positions in the spinning process, to highlight off-quality problems.

The stability of yarn quality was also controlled and improved through the system's statistical analysis of trends in cut levels, quality parameters and alarms at each winding machine.

Through the correlation analysis and cop build-up reports from the Uster Quality Expert, several indicators affecting product quality were examined. These included correlations between maintenance cycles with quality alarms, and between the service life of spinning components (top roller, apron, ring, traveler) with yarn quality parameters. Data also looked at spindle speed related to end-breaks, hairiness and energy consumption, as well as the impact of temperature and humidity on yarn faults. As a result, optimal maintenance cycles, service lifetime of components and equipment, and control of temperature and humidity were all implemented to ensure best possible stability of yarn quality.

Could you please describe the main benefits of the changes in terms of your production?

Uster Quality Expert led to the productive efficiency of winding being increased by more than 5%, thanks to the fast and accurate identification and repair of off-quality winding machines and positions. The same benefits in spinning saw the non-breaks retention rate of each doffing rise to more than 98%, with end-break frequency reduced to below 20/1,000.

The number of yarn quality alarms was also greatly reduced, and the defective product rate of yarn decreased by 2%.

Thanks to Uster Quality Expert, the operator is guided to the target machine by a real-time data display. This shortens operator patrol times and routes, reduces work intensity and improves efficiency. Maintenance can be directed at off-quality machines and positions, which again boosts efficiency.

How have these production improvements impacted on the business?

Rapid investigation and elimination of quality problems in production have improved overall efficiency, reduced costs, and enhanced the stability of product quality. Customer feedback through our sales team is that the products are unanimously appreciated.

Mr. Wang Ping – Thank you very much for these valuable insights.



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Customer Statement

“The Uster Quality Expert system eliminates the source of quality problems, and improves production efficiency while reducing production costs.”