

Total Testing' approach from Uster Technologies: The carabiner Security and partnership

The carabiner is an essential piece of equipment for mountain climbers, a failsafe connector to their safety rope. Sometimes it's a lifesaver when their luck runs out... So how can a mountaineering safety item be compared to success in the textile industry? In fact, the 'Total Testing' approach from Uster Technologies provides a neat analogy with the climber's carabiner. Because the USTER package of laboratory testing, process monitoring and know-how gives textile companies that same vital feeling of security – exactly what they need to reach the 'summit' of meeting their customers' precise quality requirements. According to Uster, "Of course, the carabiner not only connects the climber to the rope. In most cases it links to a person of trust on the other end. Just as Uster Technologies is the trusted partner at the other end of the textile chain made up by cotton classification offices, raw material dealers, spinners, knitters, weavers, dyers and retailers. USTER's innovative testing instruments and control systems enables companies to climb out of uncertainty and progress to predictable profits. That's why the carabiner is the perfect symbol for what USTER means to its customers: security, reliability and a connection they can rely on.

From sampling to continuous testing

Yarn producers need the capability to optimize their process in terms of speed and machine set-up. Combining continuous testing with laboratory tests does exactly that. Laboratory sample testing with the USTER® HVI 1000 and USTER® TESTER 5 enables producers to control raw material and define initial machine settings, while at the same time benchmarking and certifying the quality of their finished yarn.

With the new USTER® QUANTUM 3 yarn clearer, 100% of the produced yarn can be tested for key quality parameters. On the one hand, this identifies production problems for further machine setting optimization, while on the other hand it prevents faults in the final product by removing any remaining disturbing defects. In addition it allows for constant monitoring of production to ensure that the final product is of consistent quality within defined limits – any 'outliers' from these limits caused by defective bobbins are identified and corrective action can be taken. The root causes of problems identified during clearing (process step / machine / individual spindle) can only be found through additional laboratory tests. Hence the Total Testing loop is completed.

From varying to consistent quality

Quality parameters based on tests conducted in the lab, together with the results from clearing (USTER® QUANTUM 3) give clear indications on how to choose the right mix of raw material and set the machine correctly for consistent quality. Any quality exceptions – such as uneven yarn or wrong counts or contaminants – are monitored 24 hours a day and removed at the winding machine, assuring stable quality for customers. Built-in know-how and smart software (e.g. USTER® QUANTUM EXPERT 3) enable further optimization opportunities across machines (ideal settings / machine performance comparisons), between produc-

tion sites and incrementally over time for an entire mill.

From subjective to objective quality

Indications show that quality-related costs in the textile value chain can amount to as much as 6% of a retailer's total revenue (based on retailer statements). The issue is two-faceted: the actual quality and the perceived quality. More than 50 years ago Uster Technologies Ltd. established the first quality standard specifically for textiles, USTER® STATISTICS, providing quality references enabling the classification of fibers, slivers, roving, and all kinds of yarns (cotton, synthetic and cellulosic) based on data from producers around the world.

In the cotton trade, quality tags from USTER® HVI 1000 are essential for a fair price and good deal and they are supported by national cotton classification offices, for example, in the U.S.A, China, Uzbekistan and Pakistan. Spinners use USTER® STATISTICS to set quality targets, to benchmark performance against competition and to certify the quality of finished articles.

From fiber to fabric

Cotton growers, ginners and traders rely on fiber testing instruments (e.g. USTER® INTELLIGIN and USTER® HVI 1000) to achieve fair prices. Only by knowing and controlling what comes into the mill can the mill manager do justice to the job of delivering the expected quality his customers have specified. Of course, sourcing raw material is also driven by price and availability considerations but once the material has arrived the USTER® HVI 1000 helps to make the best use of it by designing the optimum bale laydown (to deliver the expected quality consistently).



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By using the single fiber test instrument, USTER® AFIS PRO2, optimal settings can be defined for each step of the mill process to minimize waste. There are a series of corresponding USTER® instruments, namely: USTER® USG PRO for sliver quality monitoring (cards and draw frames); USTER® TESTER 5 for sliver, roving and yarn analysis; USTER® TENSO-RAPID / TENSOJET strength testers for sliver, roving and yarn testing (staple / cotton and continuous / filament); USTER® ZWEIGLE HL400 hairiness tester; and of course the USTER® QUANTUM 3 yarn clearer.

Uster Technologies Ltd. is the only company able to supply a complete spectrum of instruments for cotton classing, yarn testing and monitoring. Yet our total offering of know-how and services goes even further, recognizing that quality is a challenge not only for spinning mills, but for all players in the textile value chain. USTER has developed services to ensure quality along the entire value chain. USTER® INTELLIGENT SOURCING is a service package consisting of consulting, training, mill assessments and process monitoring designed to help retailers and others. Yarn buyers can also rely on USTER® certified spinners – the USTERIZED® mills as suppliers. ♦