



USTER® 360Q

Raw Material Management

Managing a textile mill with quality in mind

Today's textile markets are highly competitive, throughout the entire value chain from fiber to fabric. Customers expect unique products, at the right quality and free from unacceptable defects, every time. Mills need to manufacture economically, with best-possible use of resources – especially raw materials and labor. These are major challenges, requiring comprehensive mill management strategies.

Discerning consumers push quality standards

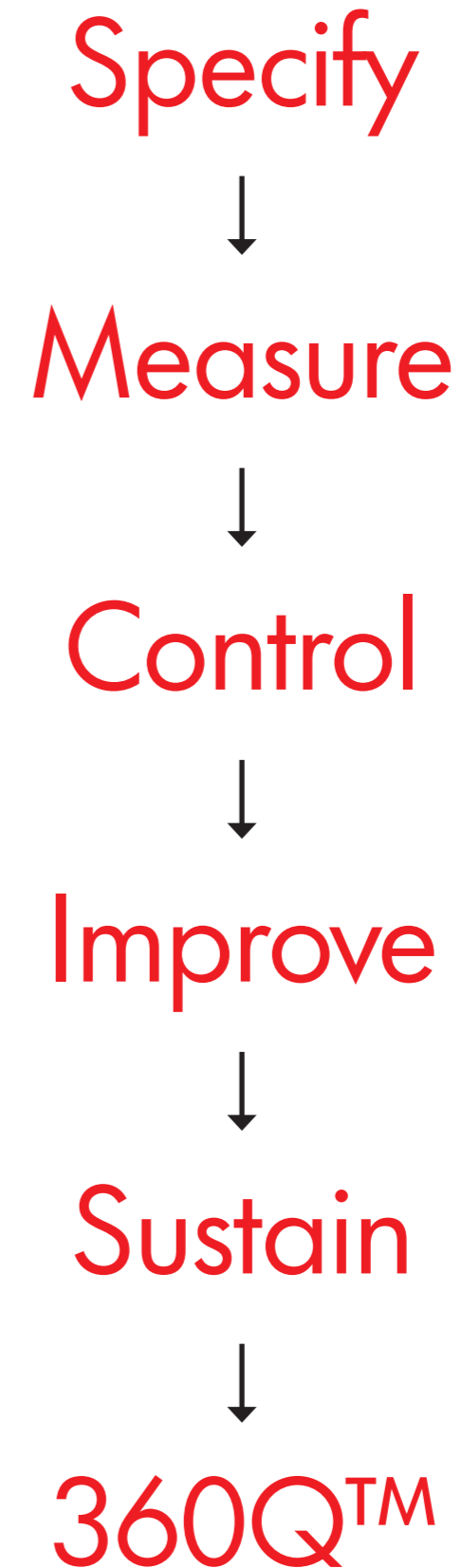
Ultimately, consumer demand is what drives textile quality. Today's consumers are more sophisticated and more discerning than ever. Manufacturers along the textile chain must rise to the challenge, producing the right yarns, fabrics and end products to satisfy the consumer.

Quality is a must, as failures cost reputation, damage profitability and lose competitive advantages. The target is clear: getting quality right, every time, satisfying expectations and making customers happy. Quality must definitely be under control.

Uster know-how puts spinners in control

There are many external business aspects that spinners can't control. Market trends, raw material prices and the general economic climate, for example. But some of those questions which give spinners sleepless nights – how to optimize raw material costs without compromising yarn quality, how to control contamination while still maintaining profit levels, or how to apply machine settings for optimum results – actually do have solutions. Uster has the know-how to enable spinners to take full control of their own mills, with quality at the forefront.

Read on to find out how Uster can help 'manage a textile mill with quality in mind'...





THINK QUALITY NEXT LEVEL



Think Quality at the Next Level

Imagine a game-changing collaboration between a textile mill and Uster that revolutionizes quality and cost efficiency. Picture the seamless integration of cutting-edge Uster equipment and intelligent digital tools, translating test data into insights for improvements. Visualize Uster's textile experts collaborating side-by-side with mill staff to achieve optimal quality levels consistently, while minimizing costs. This is Uster 360Q – a pioneering suite of solutions empowering textile manufacturers towards a new era of excellence.

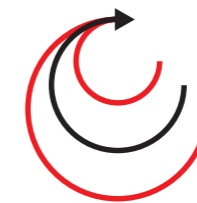
Uster 360Q smoothly combines three key elements: cutting-edge instruments, integrated software with data analytics, and unrivaled textile expertise from Uster's acknowledged specialists. With this combination, textile mills can now embody the philosophy of 'managing a mill with quality in mind', as outlined in Uster News Bulletin No. 50. Uster's goal is to elevate mills' quality consistency, profitability, and reputation to new heights, ushering in an era of unprecedented excellence.

Together, we can Think Quality at the Next Level!



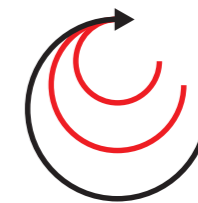
Cutting-edge hardware

State-of-the-art Uster in-line process control and laboratory systems are the foundation of the Uster 360Q suite. Uster instruments provide accurate and reliable data for mill optimization. The equipment is now available on flexible terms in selected markets.



Data-enabled software

Uster software services combine critical quality and performance data from Uster equipment with Uster textile know-how, accumulated experience and smart user-centric workflows. It focuses on the key focus areas – raw material management and contamination control, for example.



Textile Expertise

Uster textile experts bring all the capabilities of equipment, data and software tools into the mill context. They work with the mill's own personnel to train them and help shortening the road from testing to real results.



Video
customer benefits
of 360Q

Challenges of raw material management for spinning mills

Cotton is one of the most widely-used natural fibers in textiles. Mills spin it into yarns for many different types of fabric. However, a spinning mill faces numerous challenges in utilizing cotton:

Quality variations – A primary challenge faced by spinners is the quality of cotton. As a natural fiber, cotton's quality can fluctuate considerably, hinging on diverse factors such as growing conditions, harvesting techniques, and processing methods. Any inconsistencies in cotton quality can trigger substantial variations in yarn quality, leading to higher rates of yarn rejection and diminished revenue for the spinning mill.

Optimal cotton stock vs. costs – Raw cotton's seasonal nature results in significant supply and cost fluctuations, making the maintenance of adequate stock levels critical to reduce variations in performance and quality. However, accomplishing this presents significant problems, including the need for massive working capital, coping with limited storage space, and the risk of reduced quality if stocks run too low. Thus, spinning mills face a delicate balancing act to ensure optimal stock levels without compromising quality or profitability.

Process variations – The spinning process brings numerous issues that can impact the quality of the yarn produced. The quality of cotton and laydowns affect the process performance. It has a significant effect on waste in different steps in addition to quality and consistency.

Know-how and experience – A significant issue with cotton utilization in spinning is the requirement for intricate textile knowledge to make daily decisions. The processes necessitate a combination of expertise and experience, which may not always be readily available or easy to find among mill personnel.

In conclusion, cotton utilization in a spinning mill presents several challenges that need to be addressed to ensure uninterrupted production and consistent quality of the yarn produced. Spinning mills need to adopt innovative techniques and technologies to meet these challenges and ensure long-term sustainability and profitability.

With its pioneering raw material management solution, Uster Technologies can enable spinning mills to:

Achieve maximum and long-term quality consistency

Reduce mixing costs

Minimize losses from claims

Optimize performance with regard to waste and yield

Make sustainable data-driven decisions for raw material purchasing and utilization

USTER® FIBERQ – from cotton measurement to value creation

The importance and complexity of the process for raw material management not only require an instrument – but rather a comprehensive set of elements in combination to support spinning mills.

Firstly, fiber measurement using the world-reference Uster HVI equipment allows mills to determine the exact quality level of their cotton. Daily sampling or 100% bale testing can measure all the significant parameters of the raw material, which will be the criteria for selecting the best bale laydown options.

Of course, accurate measurement also then requires proper analysis and decision-making. Until now, this was a human task – usually time-consuming, with a high risk of mistakes and a low level of optimization. Increased sampling could lead to better visualization of the cotton quality but would also need more data analysis and interpretation. This is no longer a problem, since with Uster FiberQ, the HVI data can be automatically uploaded at the Uster 360Q Platform. Creating the optimum laydown from then is easy. Even without large raw material stocks and without great textile know-how, mills can achieve consistent and reliable laydowns for long-term quality consistency and trouble-free production.

Despite the first two elements of the FiberQ solution – cutting-edge hardware and data-enabled software – it's clear that every spinning mill is different in its needs, products, customer requirements and many other factors. Uster's Textile Expertise ensures that solutions will be fully-utilized to suit each mill, maximizing the resultant benefits.

Finally, by connecting data on the measured raw material and its growing area, fiber type and origin, Uster can enable better traceability – from fiber to final product – within the mill.

To summarize, FiberQ is not just measuring the cotton and creating laydowns. It is also a complete solution for raw material utilization, supporting spinners' daily processes, quality consistency, profitability and further growth



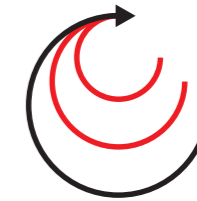
Cutting-edge hardware

Uster HVI 1000 provides the most accurate and repeatable test results for the efficient classification of cotton quality. The High Volume Instrument is the gold standard in cotton classification and creates the right data to enable optimum material management.



Data-enabled software

Uster FiberQ works with powerful software, analyzing fiber data from available inventories and creating consistent and reliable laydowns for optimum quality and performance every day.



Textile Expertise

With global know-how and experience, Uster experts enable every spinning mill to strategize raw material utilization and achieve maximum potential for quality and profits.

Cutting-edge hardware The basis for cotton control

Cotton is a natural fiber and its quality can vary significantly depending on various factors. In the cotton trade, the first and most important factor is quality of the fiber in the bales. Fiber quality will largely determine the mill's cost to convert the fiber into yarn. That is why spinners need to base purchase decisions on accurate quality data. Even a single mistake in cotton classification can cost the buyer or seller millions of dollars. The impact of fiber characteristics on final yarn quality and overall mill performance makes it essential to measure the quality of cotton.

Uster HVI – global cotton sourcing standard

Make crucial decisions using all cotton parameters

Uster HVI more accessible with subscription model

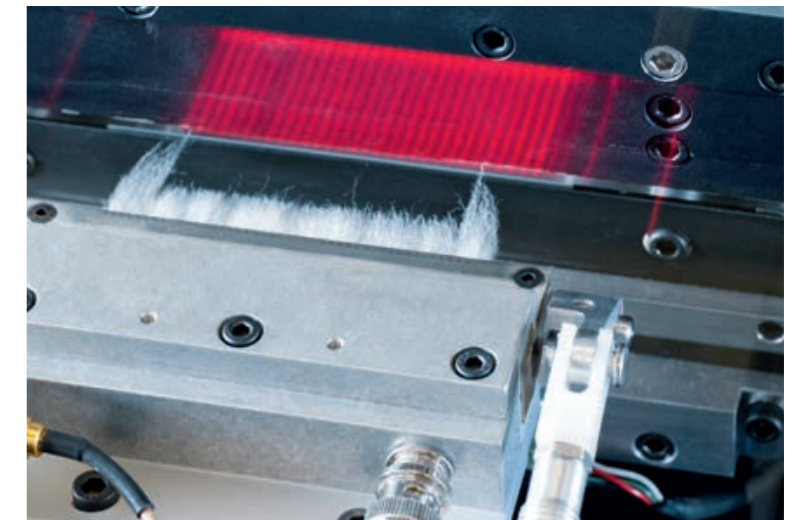


Uster HVI – global cotton sourcing standard

With over 50% of the world's cotton classed using Uster HVI, it is the gold standard for classing, sourcing and utilizing cotton. Its advanced sensor technology, robust design, and unique features ensure that raw material measurements are accurate, reliable, and globally comparable, including benchmarking to Uster Statistics.

Make crucial decisions using all cotton parameters

Raw material management requires consideration of all key parameters to ensure the best outcome. Selecting and using cotton based on all parameters to suit yarn count, end-use, spinning technology and color can prevent major quality and financial issues. Access to comprehensive cotton data allows for informed decisions that meet end-use requirements consistently and profitably.



Uster HVI more accessible with subscription model

Uster HVI is now more accessible in selected countries through a subscription model, subject to conditions. With HVI, the testing process can be adapted to specific needs, enabling higher sample testing and achieving objective, data-driven raw material sourcing and utilization. This is an opportunity for more mills to benefit from Uster HVI.



Data-enabled software

The perfect solution for every need

Raw material can account for up 50–70% of cotton yarn production costs, impacting yarn quality, performance and the mill's reputation. Optimal sourcing and utilization of raw material requires consideration of inventory, quality, and cotton parameters. Uster FiberQ software simplifies the process and increases the scope for financial and quality benefits. Uster Application Intelligence integration takes care of the complexity, unlocking maximum potential.

To suit the diverse needs of spinning mills, two different FiberQ value modules are offered: Uster FiberQ Lot and Uster FiberQ Bale. Both value modules can be combined with the other two 360Q elements – hardware subscription for a brand new HVI 1000, and Textile Expertise.

Uster FiberQ Lot

This laydown management value module is suitable for mills which take representative samples of incoming cotton lots instead of 100% testing of all bales, particularly when cotton parameter variation is low within one lot. Designed to meet the needs of lot-based management, this module automatically calculates and proposes laydowns based on a minimum of 20% sample testing. It offers higher inventory utilization and quality consistency, even with multi-variety mixes.

Uster FiberQ Bale

This laydown management value module caters for mills conducting 100% testing of bales – or have test results for every bale provided by cotton classing organizations. It is ideal for machine-picked cotton with higher parameter variations within lots. The availability of data per bale, or 100% testing, allows spinning mills to achieve high consistency and yield while using the right cotton for the desired end-use.

All Value Modules offer connection to the cloud-based Uster 360Q digital service platform and access to the Uster Academy e-learning platform.



USTER® FIBERQ Lot and USTER® FIBERQ Bale

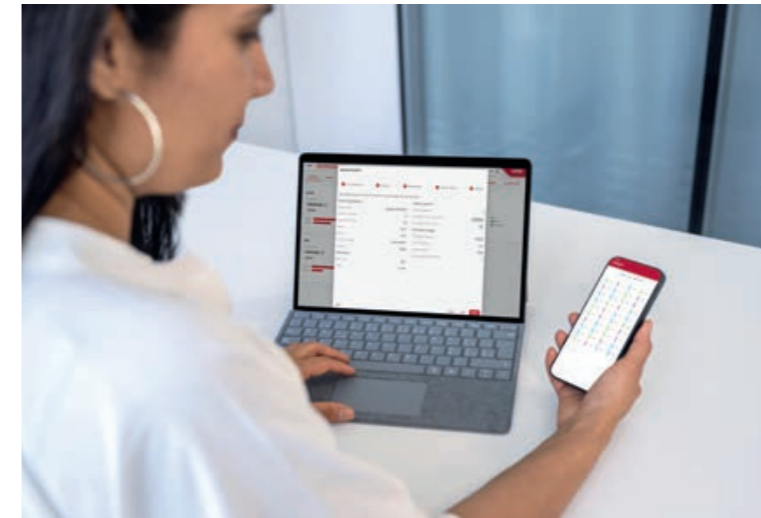
Efficient data use creates value

Each spinning mill operates with its own individual set of materials, spinning processes, end-product requirements, and applications. For many years, mills have been able to operate without any specific tool for the process of laydown creation. Now, Uster FiberQ offers spinners the chance to implement an automated laydown solution, based on Uster know-how, requiring very little effort. FiberQ is the starting point for connecting raw material quality to further process steps to achieve data-driven mill optimization in future and supporting traceability demands from further along the value chain.

Achieving maximum quality consistency and preventing barré claims

Use of high volumes of data and multiple parameters

Automation and application knowledge integrated



Achieving maximum quality consistency and preventing barré claims

Uster FiberQ's textile application intelligence automates laydown recipe creation based on mill situations and end-use requirements, preventing quality issues and reducing costs. Non-experts can create high-quality laydowns. The system allows combining multiple varieties and lowering inventory, thus increasing flexibility. Practical mill feedback reports large cost savings and higher flexibility from using the solution.

Use of high volumes of data and multiple parameters

Uster FiberQ transforms large volumes of raw material data into a valuable asset, allowing spinners to create optimal laydowns quickly by analyzing all critical cotton parameters. With full origin details and the benefits of cloud storage, spinners can use powerful analytics to optimize cotton utilization and purchasing based on long-term trends.



Automation and application knowledge integrated

Uster FiberQ allows for direct transfer of measurements from HVI 1000, which minimizes manual effort and the risk of errors.

In addition, the direct updating of used or reserved material in inventory enables better warehouse management, further improving the efficiency of the spinning mill.



Textile Expertise

A knowledgeable and experienced third eye

The hardware makes the measurements, the software analyzes it and Uster textile technologists complete the process by interpreting the results and offering expert advice. Any system, however intelligent, always needs the 'human factor' to bring the best outcome. For spinning mills, regular collaboration with Uster textile experts is what enables maximize optimization potential. The Uster 360Q solution suite offers two expertise offerings: the one-time Adoption Services and the continuing Advisory Service with targeted benefits



Uster Textile Expertise unlocks potential

Partnering with experienced Uster experts allows mills to benefit from their textile expertise, with support for decision-making and benchmarking. Regular collaboration opens mill optimization potential while also encouraging new ideas and challenging targets. Uster's external perspective can reveal new insights and unlock innovative approaches.

Uster Textile Expertise unlocks potential

Uster FiberQ Adoption Services for implementation

Uster FiberQ Advisory Services for ongoing support

Uster FiberQ Adoption Services for implementation

Adoption Services begins with an initial assessment to understand the mill's organizational and operational goals for raw material management. The service supports the implementation including set-up, configuration, training, and change management, with best practice inputs. Uster specialists ensure a smooth transition to adapted raw material management practices. Adoption Services is a one-time offering limited to the first year, including predefined support days that can be extended at additional costs.



Uster FiberQ Advisory Services for ongoing support

Uster Advisory Services provides mill managers with expert guidance for raw material management. These services can enable mills to achieve maximum quality consistency with minimum mixing cost. The resulting benefits are substantial, although implementation time may vary depending on the mill's size and set-up. Uster Advisory Services offers an annual subscription, which includes a predefined number of consulting days that can be extended at an additional cost.

USTER® 360Q PLATFORM

Secure, fast, reliable access to Uster cloud services

Mills today require secure 24/7 access to data from multiple locations worldwide, and collaboration across partners and platforms demands cloud-based technology architecture that is totally reliable. Uster Technologies is moving towards this architecture, while ensuring legal, regulatory and privacy compliance worldwide. The Uster 360Q Platform simplifies device and software complexity by providing a central access point for all Uster solutions and digital services, offering reliability and top-notch security. Uster's new architecture enables global connectivity and complete analytical power.

Fit for the future – cloud-based architecture

Unified and easy to use

State-of-the-art technology and security

Fast



Fit for the future – cloud-based architecture

Cloud solutions save hardware costs, enabling remote accessibility, while allowing scalability, with robust security measures. They make businesses more agile, and cost-effective. Additionally, cloud solutions enable businesses to leverage AI and machine learning capabilities, providing access to powerful analytical tools and insights, which drive innovation.

Unified and easy to use

The Uster 360Q Platform is a web-based solution with a single access point for all Uster digital services. Connecting to the platform is possible from any device and location.

The platform offers a simple and human-centered interface with the well-known Uster user experience and workflows that save time and effort for mill staff.

Easy



Reliable



State-of-the-art technology and security

At Uster, protecting customers' sensitive data is a top priority. Stringent measures are in place to ensure secure processing, storage, and preservation of data to prevent loss or unauthorized access. All digital quality control solutions come with robust data security protocols, backed by the trustworthy cloud provider Microsoft Azure, which undergoes regular security assessments to ensure the protection of sensitive information.

USTER® ACADEMY

Continuous, flexible and impactful learning

Proper and continuous training is crucial to upgrade skills, involve employees in company culture, and cultivate a quality mindset. However, ongoing training is often lacking, leading to knowledge loss and, performance interruptions. To address this, Uster introduces the Uster Academy, offering comprehensive e-learning from global textile experts. Participants can stay up-to-date through online courses, receiving a valuable Uster certificate upon completion.

Empowering mills
with modern e-learning

Tailored training for
diverse learning needs

Comprehensive course programs
for impactful decision-making

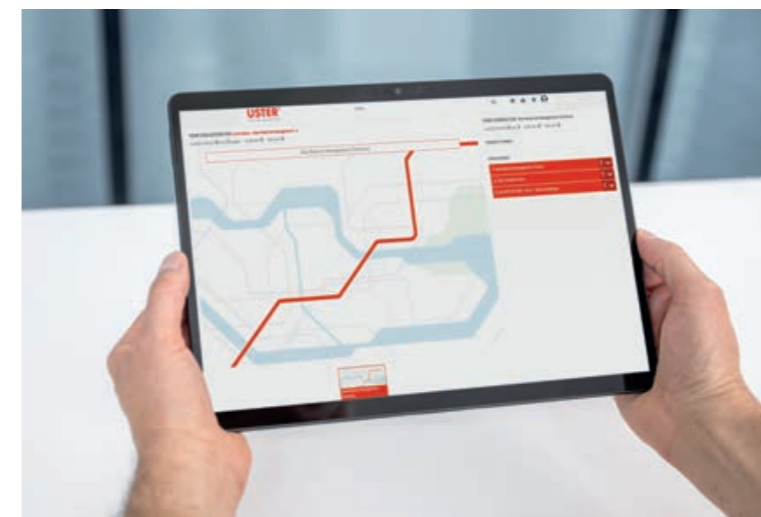


Empowering mills with modern e-learning

The Uster Academy offers a user-friendly platform for spinning mill staff to access flexible training at their own pace. The Academy provides a variety of learning tools and resources, including downloadable documents on Uster products and services, news about Uster solutions, and access to all Uster webinars. Participants can easily upgrade their skills and knowledge independent of time and place. The content is designed specifically for mill staff to enhance their capabilities, in line with latest industry trends.

Tailored training for diverse learning needs

Uster Academy training programs cater for a variety of learning styles, with digital application modules, and well-structured training. The courses are divided into chapters and offer basic and advanced levels on various topics, allowing individuals to choose their desired level of proficiency. This comprehensive approach ensures that trainees can upgrade their knowledge and skills according to their individual learning needs.



Comprehensive course programs for impactful decision-making

The Academy includes a planned series of course programs to help individuals make impactful decisions. The first program available is Raw Material Management, providing guidelines on how to manage a spinning mill with quality in mind. This program also covers relevant measurement data and software tools. The aim of these courses is to equip participants with the knowledge and skills for informed decision-making that benefit their own organizations.

Why choose USTER®?

The standard from fiber to fabric

Uster is the world's leading supplier of total quality solutions from fiber to fabric. Uster standards and precise measurement provide unparalleled advantages for producing best quality at minimum cost.

Think Quality

Our commitment to state-of-the-art technology ensures the comfort and feel of the finished product – satisfying the demands of a sophisticated market. We help our customers to benefit from our applied knowledge and experience – to think quality, think Uster.

Broad range of products

Uster occupies a unique position in the textile industry. With our broad range of products, we have a wide reach across the textile chain that is unmatched by any other supplier in the market.

Optimal service

Know-how transfer and instant help – we are where our customers are. A total of 215 certified service engineers worldwide grants fast and reliable technical support. Benefit from local know-how transfer in your specific markets and enjoy our service à la carte.

Uster Statistics – the textile industry standards

We set the standards for quality control in the global textile industry. With Uster Statistics, we provide the benchmarks that are the basis for the trading of textile products at assured levels of quality across global markets.

Usterized – brand your products with quality

Usterized stands for 'defined quality assured' within the textile chain. We invite selected customers to join the Usterized Member Program. More information at www.usterized.com.

Uster worldwide

With four technology centers, four regional service centers and 50 representative offices around the world, Uster is always sure of delivering only the best to its customers. Uster – committed to excellence, committed to quality. And that will never change.





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