

Press release

Major innovations ready to go live

Shanghai exhibition will see Uster product launches

Uster, Switzerland, 10th May 2021 – The Uster 2021 product launch season is well under way: the new Quantum 4.0 yarn clearer introduced in March, followed in April by the Q-Bar 2. Alongside these innovations came new Quality Expert software, with the latest Mill Dashboard feature. Now, these major developments are ready to go live for the first time at ITMA Asia + CITME 2021 in Shanghai.

First, Uster took decisive steps to remove any uncertainties over event timings by releasing news of the Mill Dashboard through its official LinkedIn account on 5th of March, along with a promise of more innovations to come. The launch season continued, with the new yarn clearer and the innovative formation monitoring system being presented online, ahead of the upcoming ITMA Asia + CITME exhibition in China.

Capacitive and optical sensors in one

The brand-new Uster Quantum 4.0 yarn clearer offers the best of both sensor technologies – capacitive and optical – for intelligent yarn quality control and optimized profitability. Mills can now focus on meeting the fast-moving market challenges, instead of pondering technical options.

Spinners can now access full security in quality control, ensuring the best clearing mode is applied. The Quantum 4.0 generation enables this through a simple capacitive/optical switch. This allows greater flexibility in the yarn types which can be produced, while also dealing with factors such as humidity variations.



Uster Quantum 4.0 – The connected yarn quality assurance system

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Using its unique Smart Duo technology, the Quantum 4.0 operates both sensor channels intelligently in tandem, through an innovation known as Cross Clearing. This locates and eliminates hidden defects by means of a double check, in which the main sensor's signal is supported by the assistance sensor. This deals with issues such as unnoticed fluff events, which might otherwise cause breaks downstream.

Today's market trends show strong demand for compact yarns. Here, spinners can trust Quantum 4.0 to tap this potential and deal with any quality issues. The density feature, for example, protects mills from substandard cops caused by ring spinning malfunctions such as blocked compacting zones, or twist problems. The Smart Duo has the advantage of monitoring yarn density continuously and after every splice.

As well as identifying issues at winding, defect prevention at source is now possible – a massive advantage provided by the clearer's new Quantum Expert, included in the product offering. Thanks to many extra intelligent analytical features, the Uster Quantum Expert enhances process control and prevention of defects, through Total Contamination Control, Ring Spinning Optimization and the RSO 3D Value Module.

Fabric inspection: the right position

Q-Bar 2 is best described as a formation monitoring system, because of its ingenious positioning on the loom, directly at the interface of warp and weft threads. The impact on weaving is amazing: monitoring at the earliest possible stage allows rapid response as soon as a defect appears, avoiding long-running or repeating faults. Alarm and stop signals alert the operator to correct problems immediately. Early detection reduces second quality and material loss, as well as minimizing the need for post-production checks.

Weaving defects can have various root causes, so Uster Q-Bar 2 provides different algorithms to identify specific defects and their causes. This inbuilt knowledge can prevent defects within the weft insertion cycle. The detection position in the fabric formation zone means the warp is monitored even before it is traversed by the weft – a truly unique benefit. It allows detection of incorrect warp positions, missing warp, loose warp ends and even pattern irregularities.

Another important innovation is the control of weft irregularities. By monitoring each inserted weft in the formation area, Q-Bar 2 primes users to react to weft irregularities at the earliest possible stage. At this point, it can detect weft-related defects such as double picks, broken weft or slubs and loops.

First-quality production, to customer specifications, is the overall goal. That is especially important in demanding applications such as industrial and safety textiles. In apparel and home textiles too, it is vital to avoid seconds and minimize waste fabric. Independent of the fabric application, Uster Q-Bar 2 is a game-changer. For the first time, weavers can actually prevent weaving defects instead of only reacting to them.

Key people, key data

The introduction of the latest Mill Dashboard might seem like just another of many new features with Uster Quality Expert. But this one can bring significant changes for operators in spinning mills. The new version of the Mill Dashboard presents key data directly to key individuals in the spinning mill, so they can react rapidly to any quality deviations. It also ensures greater transparency on the shop floor.

The latest release of Uster Quality Expert is available for connection – and all key quality parameters from laboratory and in-line instruments can be displayed, targeted to individual needs and preferences.

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Uster Q-Bar 2 – The formation monitoring system

Real and virtual worlds

In keeping with current trends and pandemic restrictions, Uster has also developed an effective home in the virtual world, with an online showroom to enhance in-person exhibition attendance. First of all, the new virtual showroom is exclusively open to customers who are advised to get in touch with their sales contact.

Ready to host visitors to ITMA Asia + CITME 2021, Uster will present a showcase of the latest innovations. The Quantum 4.0 is sure to be an attention-grabber: a demonstration of Quantum Expert will illustrate how customers can benefit from Quantum 4.0 and its related systems. The stylish design and the defect catalogue will trigger initial interest for Q-Bar 2 – what's likely to be even more memorable is the demonstration of how well the smart indicator lights work to show up the positions of detected defects. Also on view will be a Mill Dashboard screen, along with the Value Modules and other features of Uster Quality Expert. Clever animations will provide a deep understanding of databased quality during yarn production.

Final insider tip: the twist measurement feature of Uster Tester 6 will be shown for the first time in Asia.