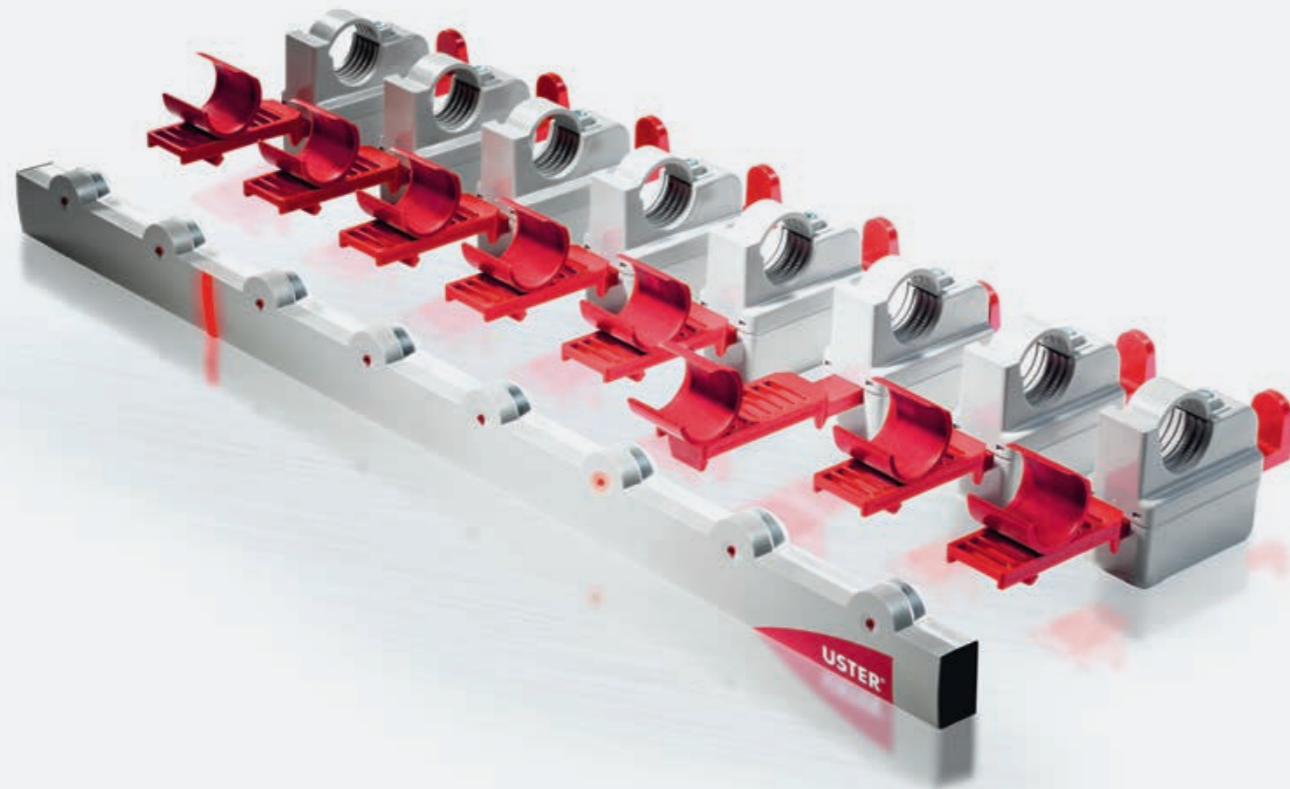


## Ring Spinning Optimization The link to productivity and quality



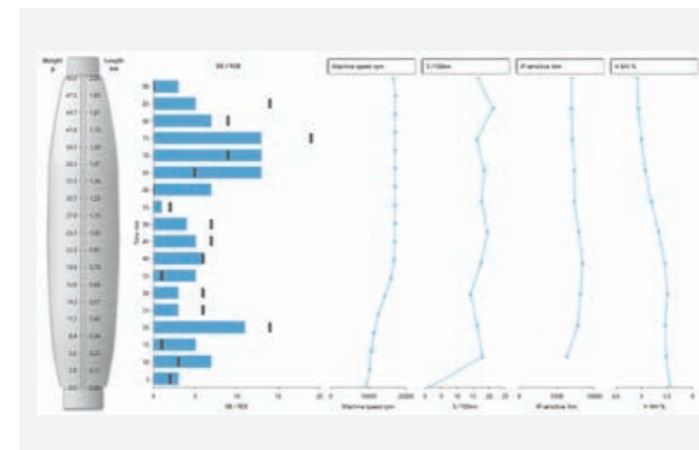
RSO (Ring Spinning Optimization) focuses on the most costly stage in yarn manufacturing: the ring spinning process. For the first time, mills can intelligently correlate ring quality data and winding quality data in a single system, for significant profitability increases.

- In-line assistance with ring spinning and winding alerts by Assistant Q
- Spindle speed optimization for higher performance, while building the best possible cops
- Optimizing ring spinning with cross-process correlation



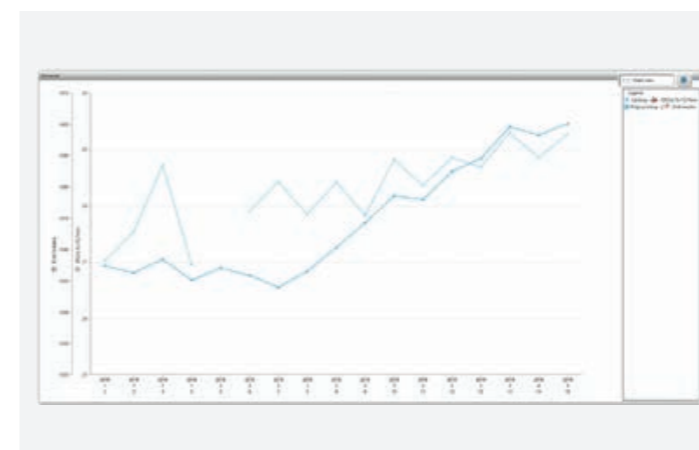
### In-line assistance with ring spinning and winding alerts

Assistant Q now offers even more smart alerts: deviations in ring spinning machines are now detected and alerted immediately. Essential conditions of the ring spinning process, such as relative humidity and temperature, are continuously monitored and alerts triggered by significant changes. Together with winding alerts from USTER® QUANTUM 3, complete coverage of quality and productivity is achieved.



### Higher performance while building up best cops

A comprehensive speed curve analysis, and its impact on quality throughout cop build-up, are elements of the new way of optimizing ring spinning performance. Cop build-up quality is the new optimization dimension, enabling spinners to select correct machine settings for higher production yields, while keeping quality at the required levels. Furthermore, comparison of ring frame performances between different machines is now possible.



### Optimizing the ring spinning process

The unique ability of USTER® QUALITY EXPERT to build correlations between the various process steps is the foundation for optimization. A change in the Short Fiber Content percentile (SFC%) can have a major impact on ring spinning performance. USTER® QUALITY EXPERT connects to laboratory and in-line systems, supporting action at the right place and time.

## USTER® QUALITY EXPERT



USTER® QUALITY EXPERT is available either as a standalone solution via a dedicated client-server – or hosted within USTER® TESTER 6.

## USTER® QUALITY EXPERT The Quality Management Platform™

USTER® QUALITY EXPERT is the Quality Management Platform™ for advanced process optimization across yarn manufacturing processes. A single system provides complete control, securing fiber, yarn and fabric quality. A combination of 100% in-line monitoring, precise laboratory testing and integrated intelligence delivers the power to predict potential faults and prevent claims.

USTER's Application Intelligence is the foundation for merging textile application know-how with insightful analytics and connected products. Smart algorithms guide data-based decisions, extending the analytical possibilities as each additional instrument is connected.

### USTER® QUALITY EXPERT Value Modules

#### Alarm center – creates awareness and triggers action

Quality consistency is the goal of every spinning mill, as inconsistent quality results in claims from customers. The alarm center uses the textile Application Intelligence embedded in Assistant Q to make sure that any variation is detected and fixed as early as possible. Assistant Q provides suggestions on what to check and records all proposed solutions, so that each mill can populate its solution knowledge base.

#### Mill analysis – insightful analytics for data-based decisions

Connecting all spinning processes makes everything transparent and comparable. USTER® QUALITY EXPERT provides full-scale mill analysis which can identify quality and productivity trends, working proactively to prevent faults and foster improvements.

#### Yarn prognosis – increases credibility between spinners and yarn users

An accurate yarn prognosis ensures customer satisfaction and strengthens cooperation between spinners and downstream processors. Testing of every yarn lot for fabric appearance, pilling and weaving performance is performed with no additional costs and in the most reproducible way. Mutual understanding, based on a common 'quality language', is supported through USTER® STATISTICS – the globally-recognized benchmarks. Ultimately, claims will be reduced.

#### Total Contamination Control – for managing remaining contaminants in yarns at minimum possible cost

What is the right level of contamination removal? How can you use fiber cleaning and yarn clearing to achieve consistent levels of contamination that will satisfy the requirements of the customer? How do you prevent waste of good material? Total Contamination Control uses the power of USTER® QUANTUM 3 and USTER® JOSSI VISION SHIELD, combined with USTER's long experience in contamination control, to answer these questions in practice.

#### Ring Spinning Optimization – the link to productivity and quality

Tasks such as finding the right speed settings and the best time for traveler change – while also controlling end-breaks, hairiness and yarn imperfections – require know-how and good control of the ring spinning process. Combining USTER® SENTINEL and USTER® QUANTUM 3 in the Ring Spinning Optimization Value Module of USTER® QUALITY EXPERT provides everything needed to draw the perfect speed curve. This will help to achieve maximum productivity and low energy consumption, with the required yarn quality.