

PRACTICAL CASE

USTER® QUANTUM 3 clearer cuts data helps prevent customer claims

An irregularity was highlighted at winding. And USTER expert systems quickly traced the cause to an earlier process in the mill...



The spinning mill noted that the yarn count cuts during production had increased, over a period of three days, from the normal level of 4/100 km to 7/100 km on average.

The mill confirmed that all machine settings in the production line were unchanged in this period. There had also been no change in the raw material or its mixing.

USTER solution

Cuts in winding related to the Continuous Count (CC) parameter were seen to be increasing, without any changes having been made in the raw material and process, or in the clearing curve.

Analysis of data from USTER® QUANTUM EXPERT 3 indicated that the increase in CC cuts was gradual, over a period of time. (Fig. 1)

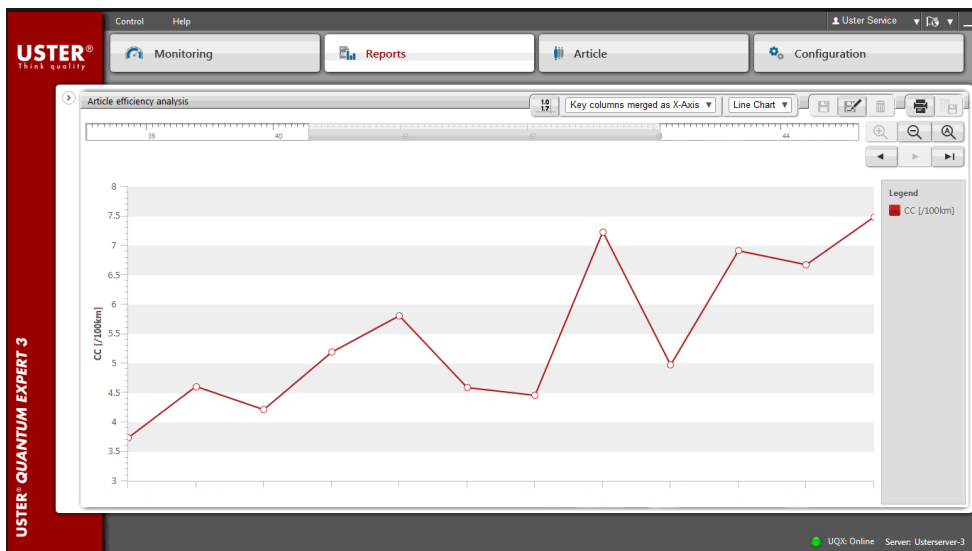


Fig. 1: USTER® QUANTUM EXPERT 3 analysis showing gradual increase in CC cuts

Further analysis with USTER® QUALITY EXPERT showed significant variations in the finisher drawframe sliver, related to sliver evenness (CVm) and CVm1m mid-term. (Fig. 2)

The spinning mill focused its investigations on any differences or changes. This revealed that inefficient levelling was being caused by a software error in the drawframe autoleveler system, following maintenance. Once the error was rectified, the sliver unevenness (CVm) returned to normal. (Fig. 3)



Fig. 2: USTER® *QUALITY EXPERT* analysis showing significant variations in sliver evenness (CVm) and CVm1m mid-term

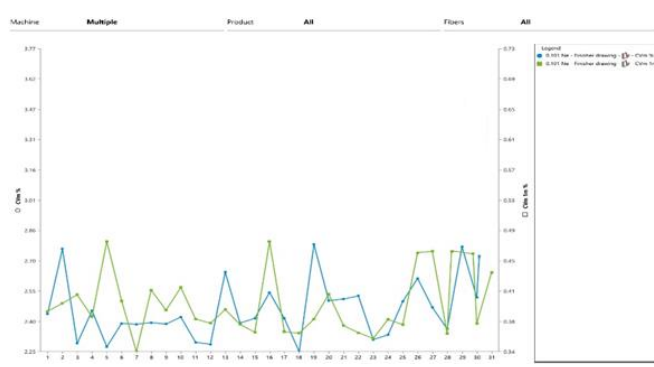


Fig. 3: USTER® *QUALITY EXPERT* analysis showing normal sliver evenness (CVm) after the software error was rectified

Consequently, when yarn spun from the rectified sliver reached the winding machines, the number of CC cuts was restored to the normal level of 4/100 km. (Fig. 4)

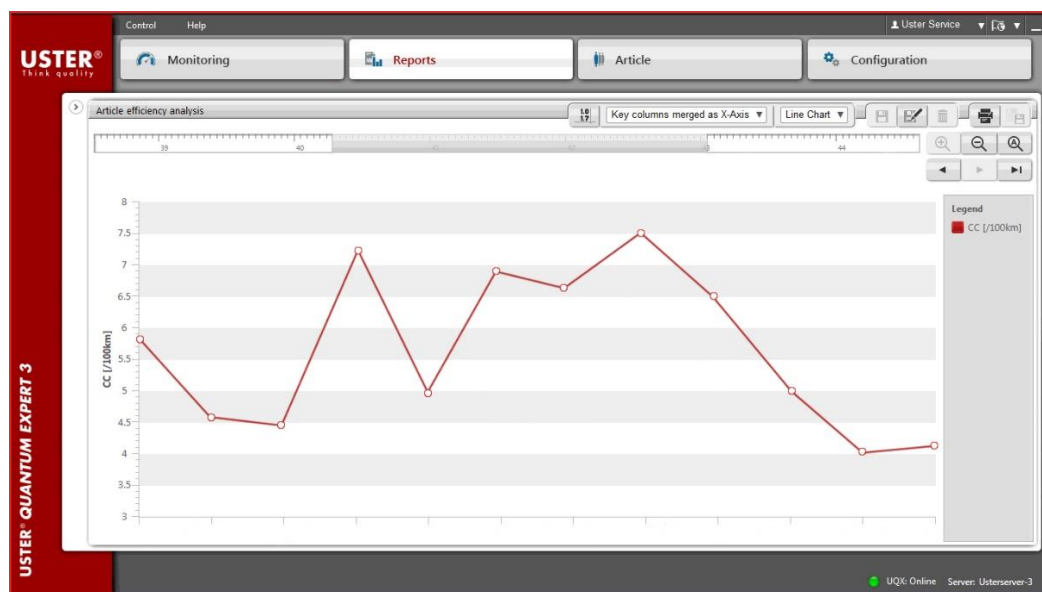


Fig. 4: USTER® *QUANTUM EXPERT 3* analysis showing normal number of CC cuts

Conclusion and Summary

- With the help of USTER® *QUANTUM EXPERT 3*, the mill was able to identify a problem before it affected the final yarn quality, thus preventing a potential customer complaint.
- USTER® *QUALITY EXPERT* enabled the spinner to locate the source of the problem and rectify it quickly.
- After corrective action, the number of count cuts during production (CC) quickly returned to normal, at 4/100 km, when yarn from the sliver was processed at winding.