TECHNICAL PAPER

WebVision: camera solutions and services to maximize production, efficiency and reduce costs

Are you able to effectively troubleshoot your tissue machine and converting line to maximize product quality, machine efficiency and revenue?

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Increasing demands for operator safety, faster production speeds and enhanced product quality make it imperative to have visibility of all your production processes. High resolution cameras and comprehensive event capturing software not only deliver full visibility, they provide you with the opportunity to address issues at their root source, allowing you to maximize product quality and machine efficiency without jeopardizing operator safety.

FULL VISIBILITY INTO ALL PRODUCTION PROCESSES is fundamental to the overall success of any tissue operation, and yet most operators are not able to answer a resounding "yes" to the following questions:
o Can you safely see inside your tissue machine and converting line?
o Do you have an immediate means of visually capturing an unwanted event in your process to find its root cause?
o Do you have a means of viewing video from the past 24 hours (or more) of process?
These questions can be answered with a "yes" if you have installed a high speed and high resolution event capturing camera system that is fully integrated into the process of operating your machine.
Simple visibility can be provided through any surveillance system. However, full visibility, with automatic event analysis and continuous troubleshooting, together with accurate same piece of paper synchronisation benefits, can only be achieved through advanced event capturing and web inspection systems, such as Papertech's WebVision®Digital & WebInspector® solutions. The motivators that warrant an investment in such solutions are:

THE NEED FOR EFFICIENT HIGH QUALITY PRODUCTION
o Excessive process interruptions - Do you experience frequent web breaks? Would solving the root cause of the break improve your bottom line? Web break footage can be acquired by an event capturing system through strategically located cameras - each synchronised to ensure rapid root cause analysis.
o Product quality problems - Have you experienced issues in your converting operation as a result of an unacceptable number of product defects in the finished reel? An advanced event capturing system with web inspection capabilities can map and classify defects. Together with additional critically located cameras, the system can often show the defects' root causes.

ELIMINATING CONVERTING BOTTLENECKS
o Operate with knowledge of incoming product quality - If you could make an advanced decision on how to run your machine based on the quality of the incoming product, would you save a significant amount of time and money? Would you be able to increase your quality output by running reels of lesser quality product as middle plies on a multi-ply rewinder? These efficiencies can be achieved through accurate reel quality maps - provided by a web inspection system. Additionally, converting lines can employ a single camera from an event capturing system to map incoming product quality to assist in accepting or rejecting product.
o Excessive process interruptions - Are your process engineers presented with increased challenges and production stoppages due to abnormalities in complex converting sequences?A typical re-winder may experience process interruptions due to faulty transfers, improper web tensioning, poor web quality, embossing, laminating, perforating, log

formation, bounce and improper core insertion. An event capturing system is the only solution for capturing these events for slow motion playback and root-cause analysis.

o Ensuring a high quality end product - Can you ensure your end product meets your customer's minimum requirements? Without knowledge of incoming product quality and the ability to measure quality parameters, the end product is often packaged in the "good faith" that it meets customer quality requirements. However, top tier converters have started rejecting product based on base sheet flaws and monitoring other quality factors using event capturing systems.

These are just a few examples of how event capturing systems can meet the needs of tissue producers and converters.

Your event capturing solution investment will typically provide the quickest payback and provide the largest return on investment under the following scenarios.

RAPID AND EFFICIENT START UP OF A NEW TISSUE/CONVERTING MACHINE. Visibility and proof of commissioning problems will ensure your new machine is up and running as fast as possible. These cost savings are typically large, often providing a complete payback of the event capturing system in a matter of weeks.

IMPROVING THE PERFORMANCE OF AN EXISTING MACHINE. Rebuilding or re-purposing an existing machine for a change in product output and quality poses similar challenges as commissioning a new machine. Also any machine that is production-limited can often benefit from an event capturing solution that provides the ability to resolve unwanted process interruptions.

CONFORMING TO NEW SAFETY AND OPERATOR TRAINING REGULATIONS - MACHINE GUARDING. Many operators are faced with decreased or often completely restricted visibility of their machines as a result of newly implemented safety guarding measures. An event capturing solution can not only restore operator-machine visibility, but can also enhance it to levels otherwise unattainable.

THE PROVEN SUCCESS OF EVENT CAPTURING SOLUTIONS: High speed camera technology for both event capturing and defect analysis has a clear return on investment for both tissue machines and converting lines. Proof of this acceptance is the rapid growth in system installations by large tissue producers such as Georgia-Pacific, Kimberly-Clark, Procter & Gamble and SCA - each heavily invested in event capturing technology. Papertech's WebVision solution - the most widely used event capturing system in the tissue industry, offers a surefire way to answer yes to all of the questions posed within this article. o

For more information on Papertech and WebVision, please visit: www.papertech.ca/perini.html