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PULP AND PAPER

## Multi-mill investment in ABB sheet break detectors helps Cascades Kingsey Falls complex eliminate instrument maintenance



The Cascades Kingsey Falls site is home to six different mills. Due to the close proximity to sister sites, the mills within the complex benefit from shared experiences. Such was the case when Cascades Containerboard Packaging moved to ABB's KPM Sheet Break Detector, leading to a multi-year, multi-site rollout of the industry's premier instrument for sheet break detection.

### First competitive replacement in 2009

The Cascades Containerboard Packaging mill in Kingsey Falls, Canada was looking to replace their existing sheet break detector, which was having so many operational issues, it wasn't being used. This can pose a risk to production and the machine.

For instance, if you catch a break in time and cut the sheet before it heads to the dryer, you'll minimize lost production. But if you don't, the broken sheet can get stuck turning around a dryer, leading to crumbles, debris and eventual shutdown to clean the machine.

Knowing they wanted to go with a different supplier to replace the faulty device, the mill evaluated and tested several sheet break suppliers before selecting ABB's KPM Sheet Break Detector - KB model.

Despite having a higher cost than some options, the KB proved to be a huge improvement. "In more than ten years of operation, we've had no false alarms," said Marc Payeur, Technical Advisor, Control and Process, Cascades. "It runs like a shadow to the process."

Notably, the mill also produces two colors, white and brown, and has not had any detection issues with either color.

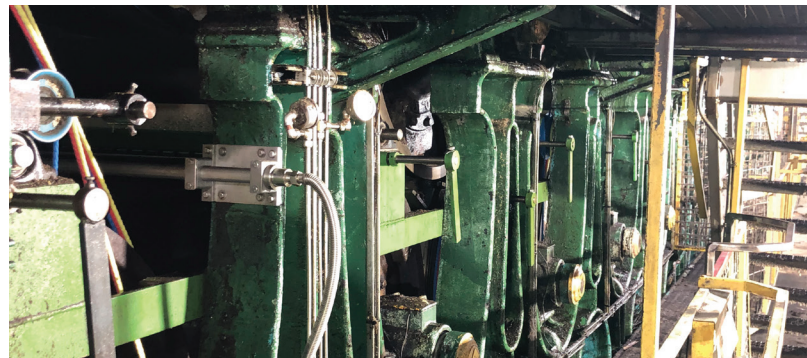
While the mill planned to replace more of its detectors with KB, budget limitations had this item fall down the priority list. So in 2020, when the opportunity arose to replace three more, Marc Payeur had the positive problem of not remembering the location of the first detector.

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"We had such little interaction with it because it didn't require any maintenance, we had to doublecheck the placement location. You know it's really good when you can say that!" said Marc Payeur.



01 Mark Payeur by the KB2 electronics unit, which is always mounted outside the machine.



02 KB2 installation at Papier Kingsey Falls.

### Tissue mill temperature issue raises need for new instrument

In 2018, Cascades Tissue Group in Kingsey Falls was having issues with their existing sheet break detector, particularly around temperature. Based on the experience at the containerboard mill, the KB2 was implemented. This time, the mill engineered the detector to work on the backside of the machine to ensure optimum performance. There is neon light installed on the frontside of the machine, which was creating a signal disturbance. ABB quickly caught how the adjustment would affect detection and recalibrated the device. "After calibration, we've had no issues with sheet break detection at the mill," said Marc Payeur.

### A full replacement for Cascades Papier Kingsey Falls

Obsolescence of the existing sheet break detectors had Cascades Papier Kingsey Falls (PKF) looking to replace all six sheet break detectors. When cost was questioned, Marc Payeur pushed back on seeking a cheaper solution.

"In the end, the mill will lose less money. The technicians do not have to go service the instrument," said Marc Payeur. "If it's a little more expensive, I don't mind that if I can leave it and forget about it yet still get great performance." So, again due to ABB's strong track record, the detectors were replaced with KB2 over the next eighteen months starting in 2019.

### Reduced maintenance benefits all mills

When asked if Cascades has been able to calculate how much the KB2 has saved the mills, Marc Payeur provided two examples.

First, if we take just the paper mill, false alarms can generate at least an hour of downtime. This may occur approximately six times per year, equaling at least \$30K in lost production. Secondly, the old devices required at least four hours of maintenance every eight weeks (timed with shutdowns).

Now, the maintenance-free KB2 liberates ~ 26 hours a year per mill for higher-value shutdown tasks. "When you don't hear about an instrument in a mill, you know it's a good instrument because it's still operating and not causing issues. So I am really happy. Mills are happy. Technicians are happy. And that's money well spent," concluded Marc Payeur.

### Full scope

- Mill: Cascades Containerboard Packaging - Kingsey Falls
  - Challenge: Poor performance of old device
  - Solution: 1 KB installed in 2009 and 3 KB2 in 2020-22
  - Result: No false alarms or maintenance needs
- Mill: Cascades Tissue Group – Kingsey Falls
  - Challenge: Temperature issues with old device
  - Solution: 1 KB2 installed in 2018
  - Result: No false alarms or maintenance needs
- Mill: Cascades Papier Kingsey Falls
  - Challenge: Obsolescence of existing installation
  - Solution: 6 KB2s installed since 2019
  - Result: No false alarms or maintenance needs

Founded in 1964, Cascades offers sustainable, innovative and value-added solutions for packaging, hygiene and recovery needs. The company employs approximately 10,000 women and men, who work in a network of nearly 80 production units in North America.