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## CEREAL SIGHTINGS

Ontario cereal producer refines Breakfast Club table manners  
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Matt Friesen,  
Manufacturing Engineer,  
Post Foods Canada





# A BLAST FROM THE PAST

Iconic Canadian breakfast cereal processor holds onto the past with modern updates to its product packaging security



Built in 1904, the now 200,000-square-foot Post Foods facility in Niagara Falls, Ont., produces over 18 million metric tonnes of cereal every year.

**ANDREW JOSEPH, FEATURES EDITOR**  
**PHOTOS BY KAZUYOSHI EHARA**

It's rare that a brick-and-mortar facility faithfully mirrors history of the product it manufactures, but for one prominent processor of grains and nuts breakfast cereals, there's really no place like home.

Situated near one of the world's great natural wonders in Niagara Falls, the **Post Foods Canada Inc.** facility has been in operation for more than 100 years, producing multiple different popular cereal products—its main products that have been made in the Niagara Falls region for a long time.

With Post Foods Canada headquartered in Toronto, and the global headquarters of **Post Holdings Inc.** located in St. Louis, Mo., the 200,000-square-foot facility of production and warehousing in Niagara Falls nowadays annually produces approximately 40 million pounds (18,144 metric tonnes) of cereal products.

"This is the original Shredded Wheat facility in Canada, and we still produce the original large biscuits here," Post Foods Canada manufacturing engineer Matt Friesen told *Canadian Packaging* magazine during a recent visit to the site. "In fact, we are the only remaining, formerly Nabisco-

owned plant that still makes this product."

"Everything we do here at the Niagara Falls plants is bag-in-box, except for Shredded Wheat," explains Friesen.

"It has its own unique system that involves the biscuits being packaged in groups of threes," says Friesen adding the *Shredded Wheat* line now operates four combination metal detection and checkweighing systems as part of a significant packaging system upgrade it purchased via **Abbey Packaging Equipment Inc.**, though a fifth unit was placed on another product packaging line.

States Friesen: "I don't want to handle consumer complaints. I want to eliminate them."

"Abbey Packaging came highly recommended to us based on their service record from other contacts within the food industry," relates Friesen. "They have a willingness to work towards the optimal solution, and that's just what we needed.

"They were even willing to help us start up the four new systems simultaneously at 2a.m. back in August of 2014," he recalls, "and we haven't really had any issues since that start-up."

Headquartered in Burlington, Ont., Abbey Packaging is a complete sales and service provider for a select group of specialized equipment manufacturers—providing solutions for product inspection, weighing and filling, horizontal/vertical pouch machines and bagmakers, and highly knowledgeable, professional local technical support services.

According to Friesen, the recommendations provided by Abbey Packaging echoed Post's own requirements, prompting the purchase of an **SSV Series Checkweigher** combination of checkweighers and metal detectors.

The **SSV Series Checkweigher** is manufactured by **Anritsu Industrial Solutions, Inc.**, a well-respected Japanese manufacturer specializing in checkweighers, metal detection and X-Ray inspection systems. Abbey Packaging is its exclusive distributor in eastern Canada, working closely with the Elk Grove, IL-headquartered **Anritsu U.S.** subsidiary



Purchased via Canadian agent Abbey Packaging Equipment, Post Foods recently installed multiple machines of Anritsu Industrial Solutions' SSV Series Checkweighers, a combination of checkweigher and metal detector units that eliminate accuracy issues on its Shredded Wheat lines.

Anritsu offers three different solutions under its *SSV Series Checkweigher* line—the **Versatile**; **Wash-down**; and **High Accuracy** systems, all with an available combination unit featuring an integrated Anritsu metal detector.

There are more than 150 standard *Checkweigher* models in the Anritsu catalog and more than 70,000 installed systems operating around the globe, according to the company.

For Post Foods, the *SSV Versatile* provides a good fit for the application, equipped with a highly flexible strain gauge load cell to provides what Abbey packaging calls 'industry-leading accuracy.'

The real challenge for Abbey Packaging wasn't in just selling the appropriate machinery, but incorporating it into the very limited space at the Post Foods facility, where the existing metal detector conveyor line was located.

"We chose to go with the combination system because it is more effective to approach consumer complaints by eliminating the consumer complaints before they happen," explains Friesen.

"Historically, one of the leading complaints we received on Shredded Wheat was that customers were missing biscuits in the package, even though the packages still met the declared weight," he relates.

"Initially, our approach was to try and detect missing biscuits in the product flow

at the point of wrapping, but this was found to be unsuccessful."

Friesen notes that prior to this project with Abbey Packaging, Post Foods had always deployed its checkweighers at the end of the packaging system to guarantee regulatory compliance, but it sought an improvement to avoid future customer complaints.

Traditionally, a vision inspection system on the wrapper infeed would be used for inspection of missing items, but both Abbey Packaging and Post Foods agreed that this approach was not reliable enough.

To resolve the problem, Abbey Packaging installed intermediate checkweighing systems immediately after the *Shredded Wheat* biscuits were wrapped to verify individual package count.

As Friesen explains, "We selected the Anritsu SSV Versatile Series combination systems from Abbey Packaging as they were the only vendor able to meet our tight footprint requirements and they came highly recommended from an aftersale perspective.

"The Anritsu systems we purchased from Abbey Packaging fit my existing line layout



Part of the SSV Versatile Series, the Anritsu duw (dual wave) metal detection unit runs to frequencies simultaneously to check for ferrous and stainless steel contaminants on the Shredded Wheat line.



Freshly baked Shreddies move out of one of the ovens from the Niagara Falls facility's all processing area on the second floor.

and reduced the cost to retrofit compared to the competition.

“Along with wanting our equipment to be capable of working at our high level of expectations, we also felt it was imperative that we also maintain high-quality local service, and Abbey Packaging was able to bring all of that to the table for us,” he adds.

Post Foods' new *SSV Versatile* model *KDS5206BP3D* has a stainless-steel finish with integrated Anritsu *Dual Wave* (*duw*) metal detection unit, and dual flipper reject system with a lockable reject bin and reject confirmation.

Adds Abbey Packaging technical sales representative Andrej Bagrinec: “Only Anritsu was able to offer a combination unit with a double flip-arm reject system that did not require any major rebuild of the production line.

“Moreover, the reject confirmation function was added to ensure that no product with contaminants or incorrect weight will leave the inspection point.”

In order to meet Post Foods' *HACCP* reporting requirements, a networkable software package for plant-wide data collection from Anritsu was implemented.

This software package, known as *QUICCA*, is a powerful tool for overall quality management, control and reporting.

Bagrinec explains: “The solution to the restricted space problem was made possible by the design of the combination system. Anritsu's advanced technology and design enabled the *duw* metal detector to be installed directly upon the *Versatile* Checkweigher's infeed conveyor—within a space of just 800 millimeters.”

The first four stainless-steel *SSV Versatile* systems sold to Post Foods utilized Anritsu's *duw* dual frequency metal detection heads, while for the second project, a fifth *SSV Versatile* combination system featured the *duw-h* high-sensitivity dual-frequency metal detection head.

“For the first project, the standard *duw* metal detectors were adequate to meet the customer's sensitivity standards,” asserts Bagrinec,

“while the second project required the higher-sensitivity *duw-h* option in order to meet the requirements of a larger product size.”

Bagrinec explains that the Anritsu *duw* series of metal detectors actually runs two electromagnetic frequencies simultaneously—one is tuned for detection of ferrous metals, and the second frequency is optimized for stainless steel detection—and is the only company to offer this technology.

“It's a unique approach that provides the

user with essentially two metal detectors in one, offering the best performance for both ferrous and stainless-steel,” notes Bagrinec, adding that the *duw-h* series owes its higher sensitivity to improved signal processing and a new head design that allows for optimal contaminant detection.

“When combined with the Anritsu Checkweigher, it provides a very compact inspection solution without sacrificing functionality or reliability,” he says.

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