



PLAN Automation vice-president and chief operating officer Mat Bedard standing in front of one of several high-performance Eagle X-Ray product inspection systems installed at the company's newly-opened product reclaim facility in Bolton, Ont.

SAFE TO RECLAIM

PLAN Automation opens up new one-of-a-kind reclaim facility for contaminated product inspection to help food manufacturers ease the fears of costly product waste

By George Guidoni, Editor
Photos by Naomi Hiltz

Thanks to the wonders of modern technology, finding the proverbial needle in a haystack is no longer the lost cause it used to be in fast-running food and beverage manufacturing facilities with zero tolerance for product contamination.

For those that can afford it, today's X-Ray product inspection systems offer a formidable line of defense against a broad range of common contaminants like metal, glass, plastic, calcified bone, stone and other debris generated at various steps of the manufacturing process.

But for many businesses with limited budgets and insufficient floorspace to accommodate permanent installation of fully-integrated inline X-Ray inspection capabilities, X-Ray technology is often

considered to be an unaffordable luxury, at least compared to conventional metal detectors.

Unfortunately, even the best metal detectors will not be able to provide full protection against non-metallic contaminants that find their way inside packaged food products, resulting in costly product recalls and, inevitably, the wasteful disposal of all suspect product to landfill.

While few food manufacturers like to discuss it publicly, the amount of perfectly good food products ending up in landfills on the account of compromised product safety in Canada is staggering, costing the industry tens of millions of dollars in lost sales each year.

To address this inconvenient reality, leading Canadian packaging automation specialists **PLAN Automation** has launched a new service to provide food



companies with off-site third-party X-Ray inspection of products deemed to be at risk of contamination but, for various reasons, can't be reworked or re-inspected again more thoroughly at the point of origin.

Housed at PLAN Automation's new 15,000-square-foot facility in Bolton, Ont., the new service offering employs multiple high-performance X-Ray inspection systems—all manufactured by the Tampa, Fla.-based **Eagle Product Inspection (EPI)**—to inspect loads of finished packaged goods suspected of possible product contamination.

While PLAN Automation has been the exclusive Canadian distributor for EPI product inspection systems for many years, the new off-site inspection service fills a long-standing void in the market for affordable and unobtrusive product inspection services that do not slow down production speed or compromise line efficiencies.

"We use state-of-the-art X-Ray technology to run products through to assure that there's no contamination inside of the product," PLAN Automation vice-president Mat Bedard told *Canadian Packaging* on a recent visit to the Bolton facility, which employs teams of general laborers to unload the shipments of product from customers requiring urgent confirmation of their products' safety; run those products through an X-Ray system best suited to that product;

A bird's-eye view of busy production area of the new 15,000-square-foot Bolton product reclaim facility where food industry customers worried about possible food contamination send their finished product for reliable third-party X-Ray inspection and validation.

and repalletize the inspected/approved products for customer pick-up or delivery.

As Bedard explains, the Bolton facility has the systems in place to carry out the three most common types of inspection—full case, primary package, or unpackaged products such as frozen meat for bone inspection—to cover virtually every possible contamination scenario.

"A few weeks ago a very large bakery company reported losing a stud and a nut inside one of their products during their sanitation and maintenance procedures," Bedard recalls, "leaving them with over \$500,000 worth of product that was potentially contaminated.

"So they contacted us to re-inspect every single case to find that stud and nut and reclaim the remainder of that particular production run.

"We inspected over 12,000 shipper cases and found the only one that was

contaminated," Bedard says, "saving our client \$500,000 in product value."

While full shipping case inspection is the most cost-efficient way to execute a product reclaim, according to Bedard, some product require much closer hands-on scrutiny.

"In some other situations we may be looking for very, very small contaminants, such as stainless-steel shavings or low-density contaminants like gaskets or O-rings," Bedard says, which would require X-Ray inspection of all individual primary packages taken out of the case.

"In some situations, where clients needs us to provide the best possible detection, we may need to remove the primary package from the shipper case," says Bedard, noting that the Eagle X-Ray systems can easily detect stainless-steel and other metal contaminants as small as 0.3-mm in size.

"In addition to financial savings, our service eliminates tremendous amount of waste, which helps our customers succeed with their sustainability programs."



“Machine wear and tear is normal in processing and packaging automation,” Bedard says, “and from time to time you can get steel shavings inside the product.”

In one such recent case, Plan Automation inspected 12,000 individual product packages to pinpoint and remove five contaminated packages from the whole batch, detecting metallic particles ranging from 0.3-mm to 0.8-mm.

With the value of the inspected product estimated at \$25,000, Bedard says the \$8,000 the client spent on the Off-Site products reclamation service is viewed as well worth it—saving the client \$17,000 in product value, and avoiding the significant costs of sending the product to landfill.”

With the value of the inspected product estimated at \$25,000, Bedard says the \$8,000 the client spent on the Off-Site Product Reclamation service not only for saving the client \$17,000 in product value, but also avoiding the significant costs of sending the product to landfill.

“This is typical for most of our product reclaim projects,” Bedard says.

“Depending on the size of the job, typical savings can range from anywhere between \$5,000 to \$10,000 to well above a million dollars.

“In addition to financial savings,” Bedard expands, “our service eliminates a tremendous amount of waste, which helps our customers succeed with their sustainability programs.”

PLAN Automation’s manager of technical services Scott Holmes says the new reclaim program has served over 200 customers in the past year, saving them over \$10 million in total product value and diverting about five million pounds of food from landfill.

Says Holmes: “Our reclaim process enables our customers to reduce waste and overall costs by keeping a lot of materials out of landfill, which ultimately translates into lower prices on the store-shelves and a more eco-friendly, sustainable method of operation.”

As Holmes relates, several weeks ago PLAN Automation carried out a multi-million-dollar product reclaim for a large beverage producer who had lost a filling nozzle during a production run.

“We have also executed reclaims for IQF (individually quick-frozen) vegetables, searching for fine wires and other metallic contaminants picked up in the processing facility,” Holmes recalls, “and



A case full of product is put through an Eagle X-Ray inspection system to find and remove small metal objects that may have found their way into the finished packages contained inside the corrugated shipping box.



A sampling of the tiny stainless-steel shavings and other metallic particles uncovered during a recent reclaim X-Ray inspection run of thousands of cookie boxes from a major Canadian baked goods manufacturer.



I recently was involved in a reclaim that was an act of sabotage, whereby some small stones were inserted inside some bakery products.

“We’re currently working on a reclaim with a poultry manufacturer inspecting their incoming [raw] product,” Holmes adds, noting the Bolton facility makes extensive use of Eagle’s new high-end *PXT Performance* X-Ray system capable of detecting bone fragments as small as 1.0-mm embedded in the meat.

“The goal is to reduce the quantity of poultry bone that’s brought into the plant initially,” he explains, “thereby reducing the amount of work that’s involved in processing and raising the overall quality of the end product.”

In some cases, PLAN Automation has been able to identify additional contamination issues that the customer was not even aware of, says Holmes, citing a recent trial run for a potato manufacturer that discovered the presence of small stones being embedded into the raw product.

While PLAN Automation is fully committed to providing its customers with the traditional on-site X-Ray inspection services, complete with a system rental and an accompanying service technician to ensure optimal operation, having the option of off-site inspection has been warmly embraced by the company’s client base.

“Having been offering our on-site reclaim services for over 10 years, our experience told us that this is not always suitable for all our clients,” Holmes explains, “because it consumes their resources and their working space.

“This new off-site service offers them a turnkey solution that allows them to continue their operations unimpeded,” he says, “while we focus on reclaiming and recovering their product for them, completely hands-off.

“Our customers can simply ship us their product, while we bring in labor and manage the whole reclaim process on their behalf.”

(Above)
A close-up of HMI (human-machine interface) panels of the Eagle X-Ray systems displaying the packaged products being inspected, whereby the contaminant is pinpointed in its exact place on the screen to enable easy removal of the contaminated package.

(Right)
A fully inspected product load repalletized and stretchwrapped in preparation for customer pick-up or delivery.



Says Holmes: “The process begins by consultation with clients to determine their specific contamination concerns.

“Based on this information, we’re able to provide a proposal matching the best X-Ray technology for detecting their suspected contaminant in their product,” he continues.

“Once we performed our testing on their product they can make the determination as to whether it’s more suitable for them to run the product at their site or shipped to us for turnkey [off-site] service.”

Notably, PLAN Automation treats all its customers with equal levels of professionalism and respect regardless of their size or marketplace pecking order.

“Our flexibility allows us to work with any size of organization—from the smallest mom-and-pop shops to multinational organizations operating in broad a variety of industries,” he proclaims.

“Between our new 15,000-square-foot facility and our large inventory of rental X-Ray machines, we find ourselves uniquely positioned to offer this one-of-a-kind service to our existing and potential clients.”

Says Holmes: “Every year there are literally millions of tons of packaged food products that are disposed of in landfills over contamination concerns.

“This costs the food industry millions of dollars both in product loss and wasted production time,” he points out.

“By using our reclaimed services, we are able to play a valuable role in our clients’ quality assurance programs by inspecting and validating their production as contaminant-free,” Homes concludes, “allowing them to recover and sell their products, instead of disposing of them.”

SUPPLIERS

PLAN Automation



Please see a video of PLAN Automation’s Off-Site Product Reclamation program in action at the company’s product reclaim facility in Bolton, Ont., on Canadian Packaging TV at www.canadianpackaging.com