



X-RAY INSPECTION ENSURES QUALITY FOR BUSTLING BAKERY

City Baking Corporation exceeds its own rigorous quality standards — and those of federal food safety regulators — with an X-ray inspection system from Mekitec.

When second-generation pastry chef Fernando Lopez and 20-year veteran baker Barry Blaine opened City Baking Corporation in 1995, their shared philosophy was a recipe for near-instant success. Only the finest, freshest ingredients would go into their brownies, cakes, pastries, and cookies. It's that consistent focus on quality that won the palates of discriminating businesses like Bank of America, Morgan Stanley, Aramark, Compass Group, Sodexo, and a host of hospital and university clients that contribute to the bakery's \$2.3 million annual sales. Blaine and Lopez eschew artificial ingredients — they bake without the aid of preservatives and additives — and for goodness sake, you won't find any metal or other foreign objects in the confections shipped from City Baking.

For 19 years, City Baking relied on metal detection technology to alert quality control associates to anomalies in the products coming out of its ovens. Jovanna Rey, inside sales coordinator at the bakery, says leveraging metal detection as a quality control helped City Baking stay within the scope of the FDA's HACCP (hazard analysis & critical control points) food safety guidelines. But, as the bakery expanded the size and assortment of goods coming off its production line to meet business demand, its metal detectors proved problematic.

Limitations Of Metal Detection Technology For Food Safety

Rey says City Baking faced two significant challenges with its incumbent metal detection system. "Our metal

detector worked well for individual, plastic-wrapped items, but some of our larger and multi-piece catering items and loaf cakes were too big to send through the metal detector," she says. "We considered purchasing a larger metal detection unit, but that posed another challenge. We use aluminum foil packaging on several of our products. In turn, we determined that the purchase of a larger metal detection unit would not fully solve our problem." For obvious reasons, metal detection technology isn't effective on foil-packaged goods, and removing those items from their packaging for metal detection inspection wasn't a viable option for the busy bakery. Not only would forcing that additional step create process inefficiency, it would invite even more quality control and product presentation challenges.

Allowing large and foil-wrapped items to pass through the quality control process unchecked posed a grave risk to the business. At City Baking, baked goods such as brownies and loaf cakes are mechanically cut into bars after they come out of the oven on aluminum trays. "There's always a risk that the cutting machine will shave

off a fragment of aluminum before those products are packaged," says Rey. If that were to happen, and metal-contaminated goods were to make their way to a catering tray that bypassed the metal detection control point, Blaine says the consequences could be dire. "Customers like Aramark, Compass, and Sodexo equate to a significant percentage of our sales," he says. "If one of them were to find an aluminum shaving in our products, the risk of losing their business would be very serious to ours."

X-Ray Food Quality Inspection Mitigates Major Risk

Just weeks before City Baking was subject to its 2015 HACCP inspection, the bakery's plight was shared with food safety solutions provider Mekitec by way of a conversation with representatives at Food Online. Mekitec sprang into action, reaching out to City Baking to offer a demonstration of its MIDMEKI X-ray imaging system within a week. By March 5,



the day of its HACCP inspection, City Baking had purchased and installed a MIDMEKI unit, and its associates were comfortably and confidently using it to ensure all goods leaving the bakery were subject to this critical control point.

MIDMEKI from Mekitec facilitated all of City Baking's criteria. For starters, its 900 mm (35.4 inch) conveyor and 400 mm x 200 mm (15.75 inch x 7.87 inch) detection area accommodate the baker's entire product line, ensuring none of its market-ready goods leave the company's Long Island facility uninspected. MIDMEKI can effectively operate at conveyor speeds near 2 meters (6.5 feet) per second, ensuring the company can maintain a rapid rate of fulfillment during peak order periods. The



Intuitive operation and simple to use controls

small-footprint, 1020 mm x 702 mm x 2020 mm (40.1 inch x 27.6 inch x 79.5 inch) X-ray unit fits seamlessly at a strategic point in the City Baking production line, where it can monitor baked goods that have already been baked, cut and prepared for consumption. Because X-ray technology enables in-foil scanning, no manual intervention is necessary to prepare goods for inspection. And, while City Baking production facilities are free of glass, ceramic, stone, and other dense materials,

MIDMEKI is capable of detecting those contaminants on the off chance they're present. That's an insurance policy not offered by food safety metal detection technologies.

Ease Of Use Contributes To Efficiency

City Baking associates were trained on the MIDMEKI software interface three days prior to its go-live at the bakery. "We were trained by a Mekitec professional, who showed us how to adjust the system to

accommodate the different densities of our finished goods," says Rey. "Mekitec was very responsive to our follow-up questions and very supportive of our aggressive installation parameters."

Rey explains that if an anomaly occurs, MIDMEKI gives the quality control associate both audible and visual cues to intervene. While City Baking hasn't yet experienced any such occurrences, the MIDMEKI unit enables a far more efficient execution of the company's protocol for dealing with foreign matter

About City Baking

City Baking was founded with the belief that bakery products are best when made by real bakers. That's why our bakery products taste so good! Fernando Lopez learned the trade early in life, at the hands of his father in Columbia, South America. He honed his skills as a pastry chef for Eli Zabar. Barry Blaine has spent the last twenty years making gourmet bakery desserts that are second to none.

Bakers by trade, Fernando and Barry, know that the best baked goods are made so irresistible with only the finest ingredients. City Baking makes every one of their gourmet goodies fresh with top quality sweet butter, whole eggs and premium ingredients.

No additives or preservatives are used so every bite of City Baking brownies, cakes and cookies delivers on superior taste!

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The system automatically stores reject images for HACCP traceability

contamination issues in the event they occur. With its previous metal detection solution, quality control associates had no idea where to examine products that had 'alarmed' for metal contamination. In contrast, the MIDMEKI interface features an on-screen display of the suspect item, a visual that includes pinpoint direction on the exact location of the contaminant in the product. "If we find a contami-

nant in an item, we dispose of it," explains Rey, "but we keep detailed corrective logs, and the additional information we glean from our MIDMEKI machine will help us take corrective action more quickly."

To ensure the continuous performance of its MIDMEKI installation, quality control specialists at the bakery test the machine daily using Mekitec-provided test cards

containing steel and ferrous materials. The results of those tests are also logged daily, an important process that ensures the quality that City Baking customers expect, and one that's requisite to the HACCP inspection process. "The X-ray system is very easy to use, and it gave us more features and benefits at a better price point than metal detection technology," Rey concludes.

About Mekitec



Mekitec has a combined experience of several decades in the development, industrialization and manufacturing of X-ray imaging systems, applied in medical, security and safety areas. This unique combination of in-depth knowledge of various industries has enabled the management to invest in long-term research and development especially for the food industry. The results of this focus and dedication are the state-of-the-art X-ray food safety systems that Mekitec supplies to its customers globally.

The product range is a high-performance, user-friendly and very space and cost competitive

X-ray technology system called MEKI. It is revolutionary as it provides 100% food quality control with high precision X-ray inspection that is designed to replace the simple metal detector with a similar investment. What's more, MEKI with its small and compact footprint, easily fits in every production line, thereby saving useful space in the factory.

With the MEKI range, food producers finally have the choice: To enjoy a fully automated, high precision and small yet cost-effective X-ray food inspection system. The groundbreaking MEKI systems provide food quality control without compromise!