CASE STUDY

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Maximum food safety for baby nutrition

The Baby Food Company ensures contaminant-free vegetable and fruit pulp pouches with a fully automated Bizerba X-ray inspection system.

Product safety is a paramount concern in the food industry, particularly in the production of baby food. Having previously used metal detectors to remove common contaminants, the company has now enhanced its safety protocols by integrating an advanced X-ray inspection system into its new production line.





he Baby Food Company promises its customers the tastiest baby food on the planet, made from the freshest fruits, vegetables, and free-range meats. ,Nothing but natural goodness, as they claim. To stay true to their promise, one thing is for sure: contaminants such as metal, glass, or bone fragments must be avoided at all costs.



COMPANY

The Baby Food Company, South Africa

The Baby Food Company in Cape Town is an exclusive supplier of premium baby food to one of South Africa's largest retailers. Founded in 2005, their product range today includes vegetable and fruit pulps, coulis and compotes, caramels, sweet sauces, curds, and frozen cubes. The products are sold both nationally and internationally. Apart from retail branded consumer products. The Baby Food Company also has a wholesale business, creating customized solutions for various value-added products.

2005 founded

65 Employees

3.37 mio. pouches inspected per year

More information babyfood.co.za



CHALLENGE

Wanted: food safety solution for end-of-line



The Baby Food Company had a robust Food Safety Management System in place, equipped with metal detection systems to eliminate packages containing foreign bodies. These might originate from any production stage—from harvesting to processing—and accordingly consist of various materials. Despite those thorough precautions, there was still a possibility that compromised packs might bypass upstream systems and checks.

New production line with new safety concept

And so, as they planned a new production line for fruit pulp in pouches, The Baby Food Company sought to incorporate an even more thorough and comprehensive end-of-line check. This system needed to be highly sensitive to a huge variety of contaminants—metals, glass, plastic, bone fragments, and stones—and capable of automatically ejecting compromised packages. The detection sensitivity had to be very high to achieve this. The X-ray machine had to be easy to clean and user-friendly for operators. Moreover, the solution required a compact design to fit the limited space available at the end of the line.



SOLUTION

Found: a refurbished high-end X-ray system

For a mid sized business as The Baby Food Company, a high-end X-ray inspection system is quite an investment. Doing their market research for an affordable solution, the company discovered Bizerba's selection of refurbished second-hand hardware. On offer there: an X-ray Inspection System XRE-D 200/120—just what they were looking for.

Pre-loved system is affordable for smaller businesses

X-ray detection boasts a higher sensitivity for typical metallic objects and can detect certain non-metallic objects depending on their density. The XRE-D's high detection sensitivity, compact footprint, and, not least, its affordable price convinced The Baby Food Company's founder and technical director, Rozi Andrew: ,As a small business, we decided to opt for a pre-loved model. The pricing structure for new X-ray machines often makes them unaffordable for smaller businesses, so buying a pre-loved or demo unit made this technology accessible.' In August 2023, Bizerba seamlessly integrated the system into the new production line, networked processes, and data management.





ADVANTAGES

Detects contaminations and weight deviations



The X-ray detection system reliably identifies contaminants and automatically ejects compromised packages from the production line. This greatly reduces the risk of contaminated goods reaching the market and triggering product recalls. Besides detecting metallic and non-metallic foreign objects, the system also identifies missing, defective, or misshapen products, as well as items that are overweight or underweight. Thanks to an efficient quick conveyor belt change system the belt can be changed within two minutes.

More data for optimized food safety

The new X-ray detector plays a vital role not only in securing food safety pack per pack. It also delivers valuable data that improves product safety management at The Baby Food Company's. Rozi Andrew: "Product safety is paramount to our business, so equipment such as metal or X-ray detectors plays a vital role in managing and securing product safety." Regarding future technology investments, Andrew says: "We were new to Bizerba. But if we need new equipment again, we will definitely check in with what Bizerba has to offer."



"Food safety is paramount in baby food production. This refurbished detection system made it affordable for us to use the best available technology."

Rozi Andrew

Founder & Technical Director, The Baby Food Company

"This was our first project for The Baby Food Company, and we were happy being able to offer a high-end solution at a very reasonable price."

Christian Schiess

Managing Director, Bizerba Southern Africa



COMPONENTS

The Baby Food Company solution

Inspecting

X-ray inspection system XRE-D 200/120

Let's count

 $1700 \, \mathrm{m}^2$

indoor production area

65

employees





