



Integrated Sorting Solutions

Nuts

Yield maximization

Eliminate Bad in Good and reduce Good in Bad. Go even further and re-process more of your valuable product easily with smart ejection technology, which separates by-product into specific streams.



Food safety

Sort out allergens, stalks, stems, glass, metal, plastic, and stones from your product. Go beyond foreign material with invisible defect detection to identify aflatoxins, mycotoxins, embedded stones, and pits.



Consistent performance

Benefit from fifty years of continuous investments in R&D and product management bolstered by our customers' highly valued feedback. These investments ensure consistent performance, high uptime, and unbeatable output quality.



Laser

For high resolution images that can see everything from foreign materials to invisible toxins, laser sensing produces the greatest contrast between good and bad. Laser emits a highly concentrated, monochromatic light suitable for fine tuning your process and gaining additional data about the products you sort and their defects. The result is a high-performance, low-maintenance technology that can spot the most subtle product defects and foreign material.

Machines: 5B, 5C



Camera

TOMRA is a leader in camera technology and even developed pulsed LED cameras specifically for food processing. These cameras boast a 25,000-hour lifetime, low maintenance requirements, and the ability to perform in the toughest of operating conditions. These unique characteristics make them perfect for detecting foreign material and sorting product based on color, size, shape and more.

Machines: 5B, 4C



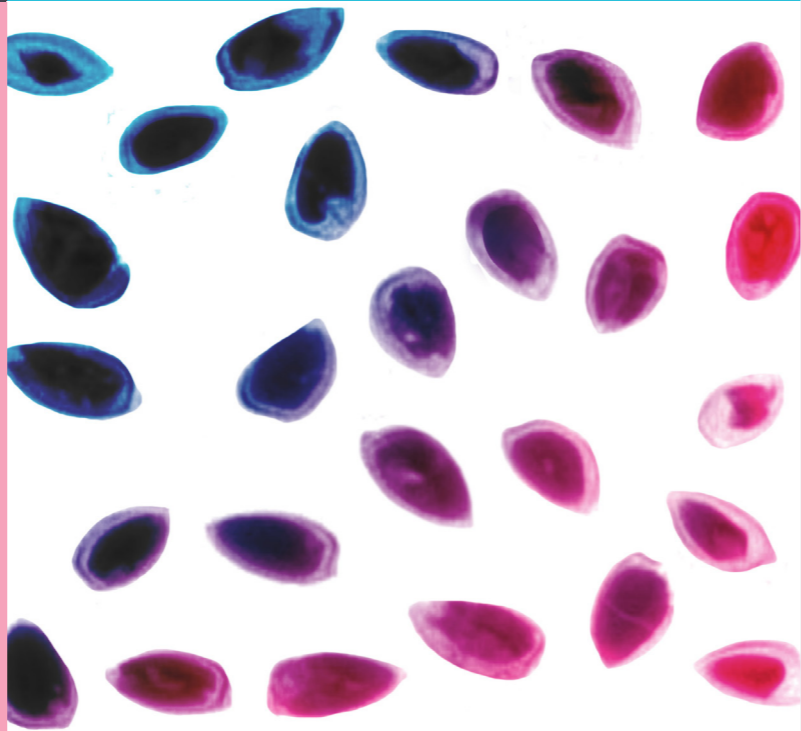
TOMRA 5C SERIES



BSI+

Examine food products using light beyond the visible spectrum. The TOMRA 5C's BSI+ technology uses near-infrared light to identify chemical and molecular differences both on the surface and within the products.

Machine: 5C



X-Ray

X-Ray delivers exceptional contrast and resolution resulting in unbeatable visibility. Metal, glass, small rocks, and other foreign material absorb more of the X-Ray than natural produce and thus are easily detected and removed.

Machine: 5X

TOMRA 5X

The TOMRA 5X scans nuts in bulk to detect foreign materials that could be dangerous to your customer. Utilizing X-Ray technology, it identifies foreign material as it absorbs more of the X-ray than natural product.

Benefits:

- Unbeatable detection of a vast range of foreign materials including glass, metal, plastics, and small rocks
- Intuitive operator interface enforces logical process and promotes consistency between operators
- Easy to clean and maintain to reduce total cost of ownership



TOMRA 5B

The TOMRA 5B delivers a winning combination of outstanding sorting performance, yield maximization, and simplified operator interactions.

Benefits:

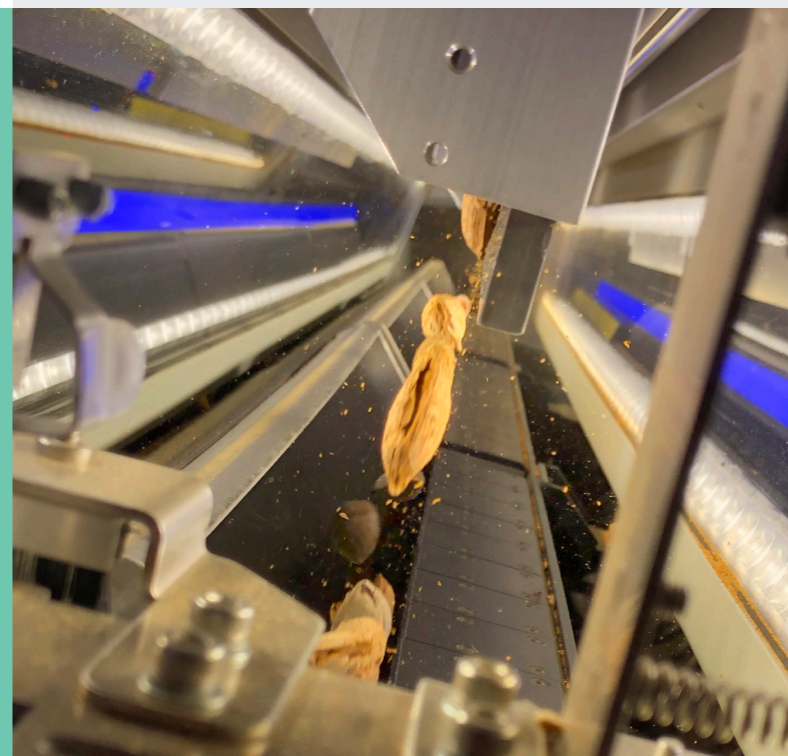
- Outstanding sort for both product defects and foreign material
- Maximized yield delivered by smart ejection, which minimizes Good in Bad
- Identify cosmetic defects in individual nuts and comply with the strictest specifications



Artificial Intelligence

TOMRA Food's AI capabilities extend across our entire active nut product line. From advanced machine learning to simple applications, our AI capabilities lift the burden from operators so you can get the right product in the right pack — season after season.

Machine 5B, 5C, 5X, 4C



TOMRA 4C

Delivering outstanding performance and boasting the entire spectrum of AI technology, the 4C is a game changer for nut processors. LUCAI™ deep learning provides the option to have the machine come pre-trained on a vast range of defects. Speed up daily tasks with an easy-to-use interface that's common across your TOMRA line. And reduce cleaning time and maintenance time with an open and hygienic design.

Benefits:

- Adaptability and unbeatable accuracy delivered by LUCAI™ Deep Learning + Machine Learning
- Less than 1% false reject rate drives yield improvements
- Greater than 97% detection performance on hull and stick defects
- Greatly reduced Total Cost of Ownership (TCO) delivered by considerable savings on maintenance and operator labor hours



Benefits of using LUCAI™

Utilize the Spectrum of AI Technologies

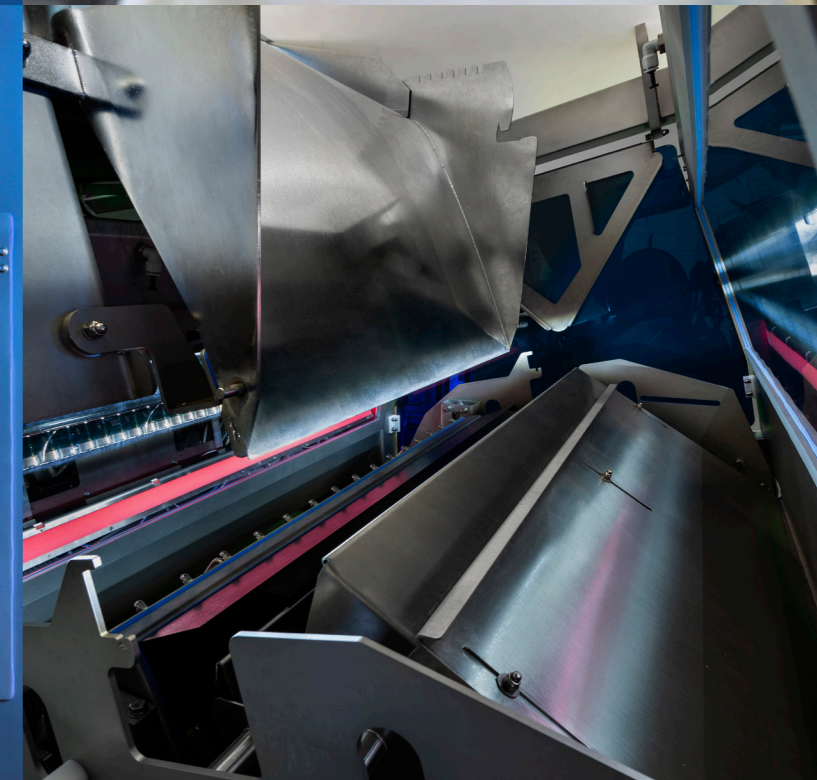
Realize the benefits of working with both Global and Local AI models. LUCAI™ Deep Learning can run in parallel with machine learning to allow instant adaptability to local conditions. An operator can easily add a previously unknown local defect (such as a unique discoloration or insect damage) to the global LUCAI™ model – in real time and without external support.

→ Maximize Profit

Maximize the profit of your nut harvest by minimizing good in bad performance.

→ Reduced Operator Hours

With LUCAI™, the machine is pre-trained on a vast library of defects and foreign materials and requires minimal operator input.

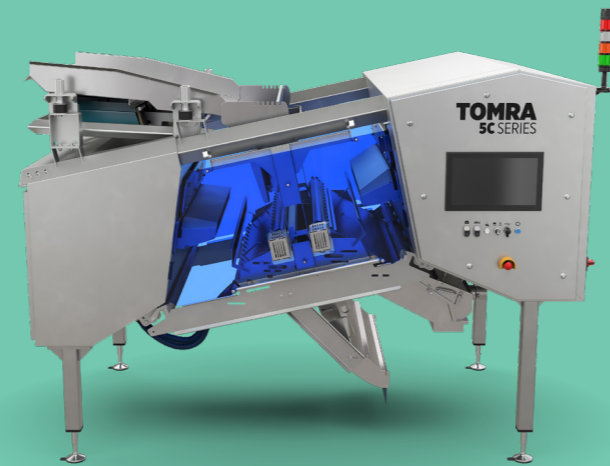


TOMRA 5C

Maximize your yield and achieve an unparalleled sort and classification of allergens, shells, insect damage, and more. The 5C delivers the best available detection and sorting through a combination of high-resolution lasers, BSI+ technology, smart ejection, and advanced AI processing.

Benefits:

- Yield improvements of up to 4%
- Capacity improvements of up to 50% with a small footprint
- Elimination of allergen cross contamination objects
- Outstanding detection performance of fungi and other defects such as aflatoxins and mycotoxins
- Market-leading minimization of collateral ejection while maximizing defect removal



Right product, right pack, season after season: AI at TOMRA

Setting the right grading tolerance takes discussion, time, effort, and labor – and the one thing that remains the same is that the next season will be different.

TOMRA Food's AI capabilities extend across our entire active product line. From deep learning to simple machine learning applications, our AI features and capabilities support your strategic decision-making and lift the burden from your operators.

The result: right product, right pack, season after season – no matter where the year takes your business.



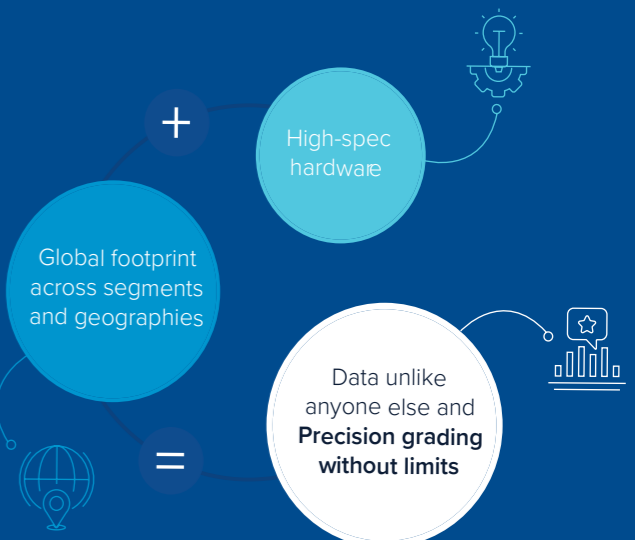
“When evaluating a piece of equipment, we look for it to pay for itself in three to five years, and the TOMRA 5C will. We have increased a specific product's production by 20 to 25%, producing at higher volumes, in less time, with less labor required.”

Scott Eastom, COO of
The Almond Company



Why TOMRA?

We lead the industry because:





TOMRA

Interested in a free demonstration with your own product or require more information?

Please contact us directly

www.tomra.com/food



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