



TOMRA



TOMRA 4C  
Optical Sorter

Designed for nut processors and equipped with machine learning, the TOMRA 4C delivers ease of use for operators and reduces the time needed for completing daily tasks. The machine delivers outstanding performance on detection of foreign material and product defects – all with a false reject rate of 1% or less

## Benefits to your business

- ✔ Greatly reduce the time required for operators to complete daily tasks
- ✔ Adapt to your local environment in real time by utilizing the machine learning model
- ✔ Greater than 97% defect detection performance on many nut defects including hull & stick and shell & stem
- ✔ Less than 1% false reject rate drives yield maximization
- ✔ 97.8% detection performance on foreign materials including glass, metal, stone, plastics and rubber
- ✔ Reduce operator training time with a common user interface between TOMRA machines



## Working principle

1. A feed shaker with hopper uniformly spreads the product over the freefall chute.
2. The product slides down towards the inspection zone, where it is scanned by multi-channel pulsed LED.
3. The XCD system calculates the required ejections based on the tolerance setting and the defects identified by the operator.
4. A few milliseconds later the defective nut and foreign material are hit with a precise and powerful burst of air sending them into the rejection zone.
5. The good product continues its natural freefall.



### Machine Learning

TOMRA's machine learning model enables operators to train the machine quickly and easily on "good" versus "bad". Once the machine is trained, the operator time required to process sorts is greatly reduced. Unbeatable accuracy is assured – sort after sort.



### Pulse+ sensors

Pulse+ is the latest generation of optimized pulsed LED sensors. The sensors are low maintenance, have a long lifetime and deliver consistent detection performance.



### Smart ejection

The TOMRA 4C is equipped with algorithmic analysis and air ejectors. Together, they de-cluster objects, minimize good-in-bad ejection and maximize yield.



### Integration-Ready

With its small footprint, the 4C fits your existing line and tight spaces. The 4C can be configured for product flow and speed requirements as required for an existing application. Data export capabilities allow rapid integration with management and control systems.



### Simplified design

An open design and built of robust materials delivers outstanding reliability. Hygienic design and removable chutes simplifies cleaning and saves time



### Intuitive operator interface

Common across all TOMRA optical sorters, the interface and machine learning classifier are highly intuitive. It's easy for operators to use and reduces the time spent on daily tasks.

## Dimensions and specifications

Model		Dimensions				
Machine		Width**	Length	Height	Feed Height	Feed Height with Hopper
TOMRA 4C 800	Metric (mm)	1506	2359	2401	2098	2617
	Imperial (in)	59.29	92.88	94.52	82.59	103.04
TOMRA 4C 1600	Metric (mm)	2306	2359	2401	2098	2617
	Imperial (in)	90.79	92.88	94.52	82.59	103.04

\*Information shown for reference and may change depending on the actual application.

Interested in more information?  
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