

HELIUS

OPTICAL SORTER



HELIUS

OPTICAL SORTER

The Helius free-fall sorter provides the optical sorting solution to address the constantly increasing demands for high-quality products, ensuring consistent food quality and customer satisfaction with products free of unwanted discolorations, foreign material, ...



DETECTION

With up to 12 individual laser signals, the Helius detects all color, structure defects from a stream of good product. The Helius is also able to sort based on biological characteristics, invisible to the human eye. Combined with TOMRA's patented FLUO™ technology, the Helius detects the slightest shades of chlorophyll to create an even better contrast between good products and defects. Other technologies available are SWIR, Detox™ for aflatoxin and AFMD.

REJECTION

After the inspection of the produces, the unwanted material is ejected via a front or rear ejection system. The manifold position before or behind the produces provides higher rejection accuracy, efficiency and more consistent sorting. The Helius sorter can also be equipped with a 3-way sorting system for greater flexibility, even lower false reject and improved yield.

BENEFITS OF THE HELIUS

- +Maximum efficiency in all conditions
- +Calibration free
- +Small footprint
- +Upgradeable
- +Self-learning (Flex & Smart Sort technology)
- +Low on maintenance
- +Easy to operate

APPLICATIONS

Dried fruit:

- +Raisins
- +Figs
- +Prunes
- +Dried cherries

Vegetables:

- +Carrots
- +Peas
- +Frozen corn
- +Frozen zucchini
- +Dry beans
- +Green beans
- +Peppers
- +Baby leaf spinach

Nuts:

- +Almonds, cashews, hazelnuts
- +Peanuts, pecans, pistachios
- +Sunflower, sesam seeds
- +Walnuts, pine nuts, brazil nuts,...

IQF vegetables and fruit:

- +IQF Blackberries,
- +IQF Broccoli
- +IQF Mixed vegetables
- +IQF Strawberries

Fruit:

- +Fresh blueberries, cranberries
- +Fresh & frozen cherries

And many many more ..

Technology allowing to see the invisible

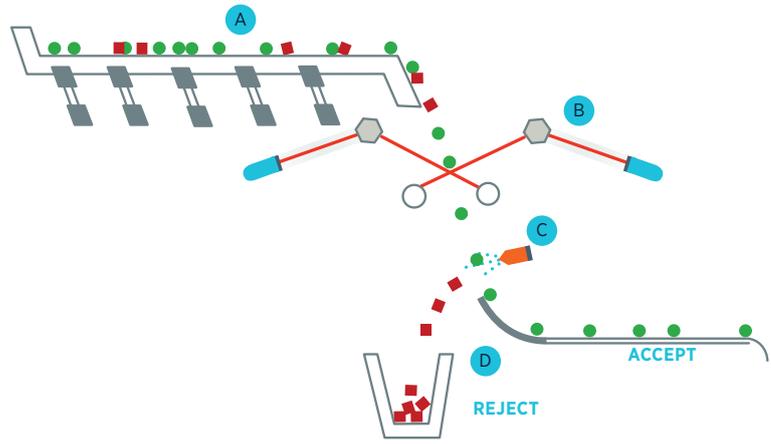


Inspection of peanuts in free-fall.

WORKING PRINCIPLE

The feed shaker spreads the products uniformly over the free-fall chute. The product falls down towards the inspection zone, where it is scanned by the lasers. A few milliseconds later the defects are hit by a precise, powerful burst of air sending them into the rejection zone while the good product continues its natural free-fall.

- A Infeed shaker (unsorted)
- B Lasers
- C Precise air guns
- D Accept - Reject



1 EJECTOR MANIFOLD

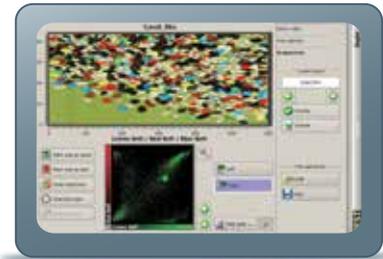
The Helius sorter is equipped with new ejector valves exclusively designed for TOMRA. The state-of-the-air guns reject any defect within milliseconds.

2 UPGRADEABLE AND MODULAR

Thanks to its symmetrical, mechanical concept, the Helius fits in any production line using minimal space. The sorter is not only retrofit-able in case of future lay-out changes but can also be upgraded.

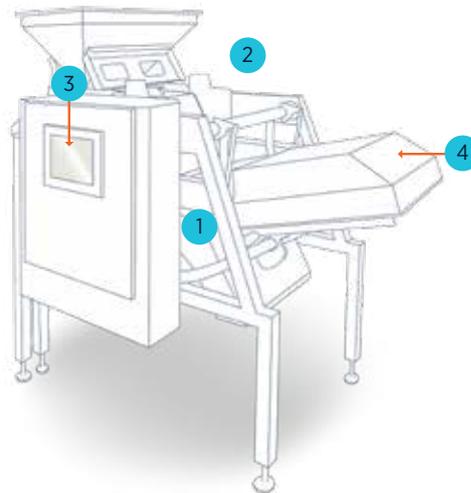
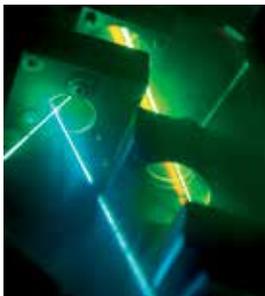
3 SMART SORT

The Smart Sort module helps the operator setting parameters by analyzing the incoming product. The software automatically provides a set-up in a simple and timely manner. Advanced artificial intelligence makes the machine self-learning and defines good products and defects.



4 LASER

The Helius offers different types of laser technologies, such as FLUO™, SWIR, AFMD and Detox™ lasers, that fit the specific needs of each customer.



ADVANCED FOOD SORTING CRITERIA

- Subtle Color
- Subtle Defect
- SWIR
- Biological Characteristics
- Subtle Blemishes
- Damage
- Foreign Material
- Advanced Foreign Material Detection
- Detox™
- FLUO™

DIMENSIONS AND SPECIFICATIONS*

Model	Dimensions				Utilities	
	Width	Length	Height	Infeed Elevation	Power	Air
HELIUS 640	2759 mm (109")	3433 mm (135")	2094 mm (82")	2904 mm (114")	1ph: 3kVA + 3ph: 2,5kVA	2-6 bar
HELIUS P 640	2759 mm (109")	2784 mm (110")	2486 mm (97,7")	2483 mm (98")	1ph: 5kVA	6-7 bar
HELIUS 1200	3219 mm (127")	4198 mm (165")	2088 mm (94,8")	2088 mm (82")	1ph: 3kVA + 3ph: 2,5kVA	2-6 bar
HELIUS P 1200	3219 mm (127")	2997 mm (118")	2486mm (98")	2486 mm (98")	1ph: 5kVA	6-7 bar
HELIUS 1600	3619 mm (142")	5546 mm (218")	2366 mm (93")	2366 mm (93")	1ph: 3kVA + 3ph: 2,5kVA	2-6 bar

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



You are a Resource Revolutionary.

TOMRA Sorting Solutions Food unites two strong brands in the food industry to become the leading provider of sensor based sorting, peeling and processing technology for the fresh- and processed food industries.

Turning yield into usage, profits into progress, TOMRA transforms the way the world obtains, uses, and reuses its resources.

If you are interested in a free demonstration with your own product or if you need more information, please contact us directly.



TOMRA Sorting Food EMEA

Research Park Haasrode 1622
Romeinse straat, 20
3001 Leuven
BELGIUM

Tel: +32 16 396 396
Fax: +32 16 396 390
W: tomra.com/food
E: food-sorting@tomra.com

TOMRA Sorting Food AMERICAS

875 Embarcadero Drive
West Sacramento
California 95605
U.S.A.

Tel: +1 916 388 3900
Fax: +1 916 388 3901
W: tomra.com/food
E: food-sorting-us@tomra.com

TOMRA Sorting Food ASIA

1A/E, Rihua Building, No.8, Xinfeng 2nd Road
Huli District, Xiamen, Fujian, P.R.C
361006 Xiamen
CHINA

Tel: +86 571 8893 5895
Fax: +86 571 8893 5897
W: tomra.com/food
E: food-sorting-asia@tomra.com