

GENIUS

OPTICAL SORTER



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The Genius food sorter uses a combination of various sorting technologies to meet the high food safety requirements of the food industry and individual food processors. The Genius removes all unwanted discolorations and foreign material from many food applications such as vegetables, fresh cut, potatoes, nuts and many many more.

Thanks to the Genius you will be able to ensure safe and excellent quality food!



DETECTION

The Genius is a modular sorting machine that can be tailored to your unique requirements and needs. With high resolution cameras, and lasers, the Genius offers different inspection technologies in different inspection zones. This way, the Genius achieves an unequalled sorting performance.

REJECTION

After being scanned in the different inspection zones, the state-of-the-art air guns reject any defect within milliseconds in 2 or 3 separate streams. The good product proceeds its way in the processing line. Depending on the product, the right size of valve is determined.

BENEFITS OF THE GENIUS

- +User-friendly
- +Low maintenance
- +Modular/upgradeable
- +High capacity
- +Extremely fast payback on investment

FOOD SORTING APPLICATIONS

Potato products:

- +French fries
- +Potato chips
- +Potato slices, dices, wedges

Vegetables:

- +Carrots
- +Corn
- +Beans
- +Broccoli
- +Garlic
- +Green beans
- +Peas
- +Peppers

Fresh cut:

- +Iceberg
- +Lamb's lettuce
- +Spinach, baby spinach

- +Baby leaf
- +Romain
- +Roquette, rucicola

Fruit:

- +Cranberries
- +Pineapples

Nuts:

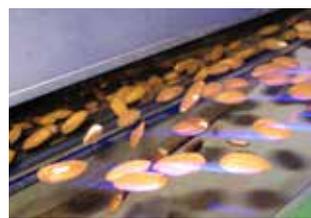
- +Almonds
- +Cashews
- +Macademias
- +Peanuts

Seafood:

- Shrimps (cold or warm water)
- Mussels

and many, many more ...

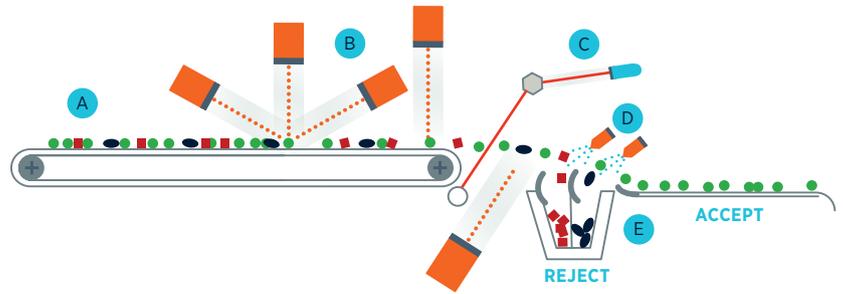
Optimal sorting thanks to innovative technology



The Genius detects and sorts defects invisible for the human eye at amazing speed.

WORKING PRINCIPLE

The produce is spread uniformly onto the infeed belt and scanned by cameras and/or lasers in the different inspection zones. A few milliseconds later defects are rejected in 1 or 2 separate reject streams by powerful air guns, positioned at the end of the infeed belt. The good produce continues its way along the processing line.



- A Infeed belt
- B Cameras
- C Lasers
- D Air guns
- E Accept / reject

1 CAMERAS

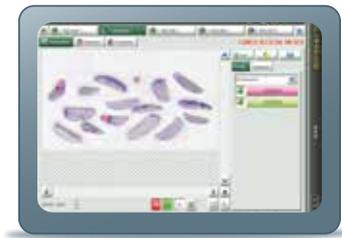
High resolution cameras (color or monochromatic) inspect the product from all sides, on or off belt, allowing an optimal inspection on color, structure, shape and biological characteristics.

2 LIGHTING

The cameras and lasers can be combined with different types of illumination for each area, such as fluorescent lighting or LED in one area and UV or IR lighting in another area.

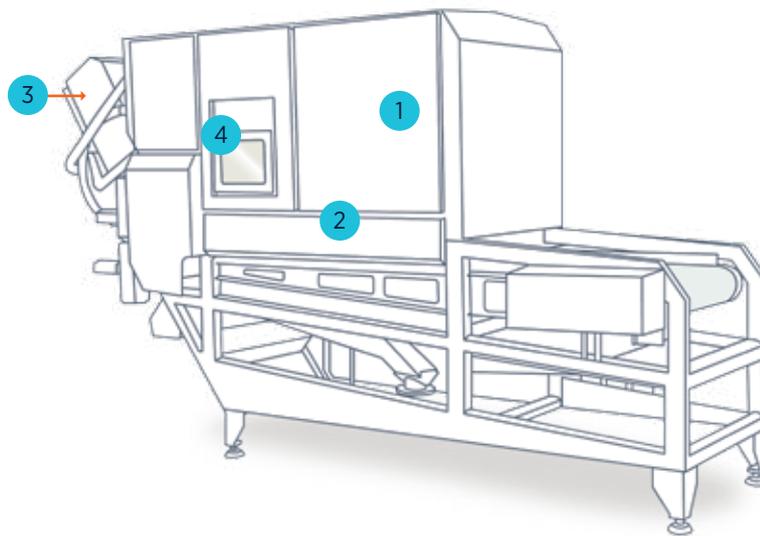
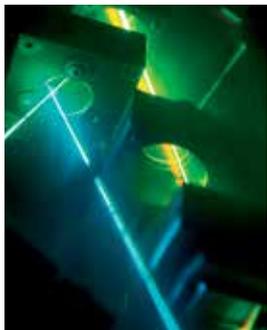
4 TOUCH SCREEN

The touch screen, using an intuitive Graphical User Interface (GUI) allows daily operation, quality control and feedback. Thanks to the remote control system, your personnel or TOMRA's service engineers can also access the settings from anywhere in the world.



3 LASERS

The Genius offers different types of laser technologies, such as FLUO™, SWIR or Detox™ lasers, that fit your needs.



ADVANCED FOOD SORTING CRITERIA

- Subtle color
- Foreign material
- Advanced Foreign Material Detection
- Detailed size / geometry
- Detailed shape
- Damages
- Moisture
- Biological characteristics
- Mycotoxins
- Data

DIMENSIONS AND SPECIFICATIONS

Model	Dimensions				Utilities	
	Width	Length	Height	Infeed elevation	Power	Air
GENIUS 640	1280 mm (50")	3470 mm (137")	2470 mm (97")	1150 mm (45")	3ph+N: 5kVA	6-7 bar
GENIUS 1200	2411 mm (95")	4160 mm (164")	2630 mm (104")	1150 mm (45")	3ph+N: 7,5kVA	6-7 bar
GENIUS 1600	2411 mm (95")	4160 mm (164")	2630 mm (104")	1150 mm (45")	3ph+N: 10kVA	6-7 bar
GENIUS 2000	2741 mm (108")	4630 mm (182")	2687 mm (106")	1150 mm (45")	3ph+N: 10kVA	6-7 bar



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.



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