

# NIMBUS

## OPTICAL SORTER



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With a combination of various sorting technologies, the Nimbus free fall sorter is the answer to meet the continuously high requirements of the food industry and individual processors for safe and excellent quality food by removing any unwanted discolorations, foreign material, deformed products,...



### DETECTION

The new generation of free-fall sorting solutions combines the efficiency of the laser detection on foreign material, together with the camera to sort discolorations and shape for products in free-fall. In addition to these conventional sorting methods, the Nimbus is able to sort based on biological characteristics, such as chlorophyll (FLUO™), mycotoxins (Detox™), water (SWIR), and can be equipped with a hyper-spectral camera to identify the material's unique fingerprint.

### REJECTION

The ejection system uses an optimal pitch for enhanced removal of defects. The Nimbus can be equipped with front sorting or a Rear Ejection System for greater flexibility, lower false reject and improved yield.

### BENEFITS OF THE NIMBUS

- +User friendly
- +Low maintenance
- +Upgradeable with camera technology
- +Calibration-free
- +High capacity
- +Optimised sort
- +Increased uptime, quality, throughput, yield
- +Customer satisfaction

### APPLICATIONS

- Nuts:
- +Almonds, cashews, hazelnuts
  - +Peanuts, pecans, pistachios
  - +Sunflower, sesame seeds
  - +Walnuts, pine nuts, Brazil nuts
- IQF vegetables and fruit:
- +IQF blackberries,
  - +IQF broccoli
  - +IQF mixed vegetables
  - +IQF strawberries
- Fruit:
- +Fresh blueberries, cranberries, raspberries
  - +Fresh & frozen cherries
- Dried fruit:
- +Raisins
  - +Figs
  - +Prunes
  - +Dried cherries
- Vegetables:
- +Carrots,
  - +Peas
  - +Frozen corn
  - +Frozen zucchini
  - +Dried beans
  - +Green beans
  - +Peppers
  - +Baby leaf spinach
- And many many more ..

Gentle product handling is assured by design

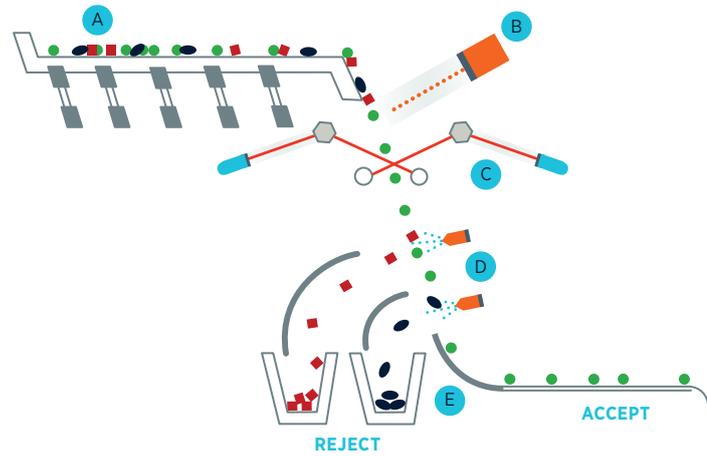


The Nimbus's lasers and cameras inspect peanuts during free-fall.

## WORKING PRINCIPLE

A feed shaker uniformly spreads the product over the free-fall chute. The product falls down towards the inspection zone, where it is scanned by the lasers and cameras. A few milliseconds later the defects are hit with 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 Cameras
- C Lasers
- D Precise air guns
- E Separate streams: accept, reject



### 1 SMART SORT

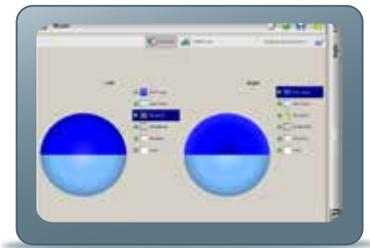
The Smart Sort module helps the operator set parameters by analysing the incoming products. It automatically provides a program set up in a simple and timely manner.

### 2 FLEX SORT

The digital Flex Sort module eliminates the need to select and change the optimal reference drum for each specific product. This revolutionary technology improves the contrast between good products and defects.

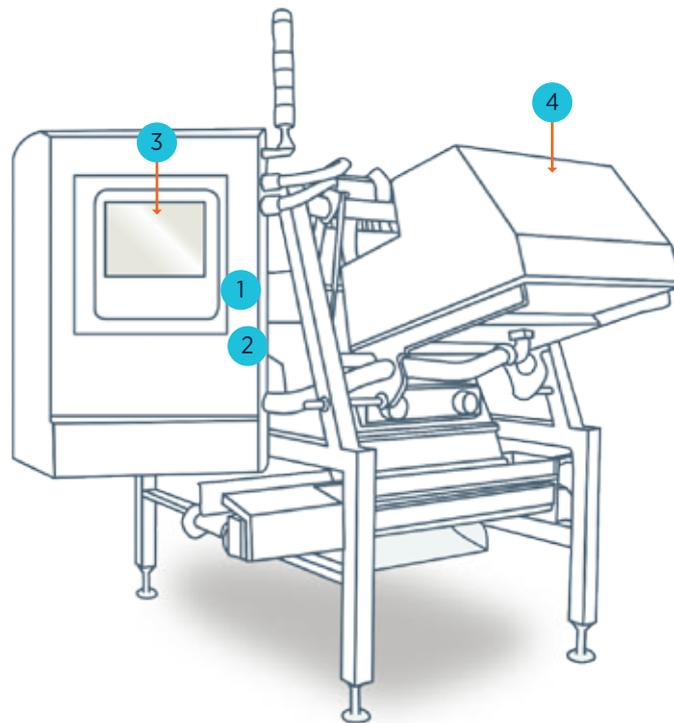
### 3 EASE OF USE

Quality control and feedback are secured by the intuitive Graphical User Interface (GUI) and touch screen. Thanks to the PAX system, customers or TOMRA service engineers can also access the machine settings from anywhere in the world.



### 4 CAMERAS & LASERS

High resolution cameras and multiple lasers for rear and front inspection allow an optimal detection of color, structure, shape and biological characteristics.



## ADVANCED SORTING PARAMETERS & TECHNOLOGY

- Detailed Size / Geometry
- Detailed Shape
- Subtle Color
- Subtle Defects
- SWIR
- Biological Characteristics
- Data
- Subtle Blemishes
- Damage
- Foreign Material
- Advanced Foreign Material Detection
- Detox™
- FLUO™
- Hyperspectral

## DIMENSIONS AND SPECIFICATIONS

Model	Dimensions				Utilities	
	Width	Length	Height	Infeed Elevation	Power	Air
<b>NIMBUS 640</b>	2200 mm (87")	3500 mm (138")	2450 mm (96")	2200 mm (86,4")	1ph: 4kVA + 3ph: 2,5kVA	6-7 bar
<b>NIMBUS 1200</b>	2660 mm (105")	4200 mm (165")	2450 mm (96")	2200 mm (86,4")	1ph: 4kVA + 3ph: 2,5kVA	6-7 bar
<b>NIMBUS 1600</b>	3050 mm (120")	5550 mm (219")	2450 mm (96")	2400 mm (94,2")	1ph: 4kVA + 3ph: 2,5kVA	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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