

# NIMBUS

## OPTICAL SORTER

### BIOMETRIC SIGNATURE IDENTIFICATION



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With a combination of various sorting technologies, the Nimbus free fall sorter with Biometric Signature Identification (BSI) completes our product portfolio. The sorter meets the continuously high requirements of the food industry and individual processors for safe and excellent quality food by removing unwanted material.



#### DETECTION

The new generation of free-fall sorting solutions combines the efficiency of the laser detection with the BSI module specifically designed to identify the material's unique fingerprint. In addition to these sorting methods, the Nimbus is able to sort based on biological characteristics, such as chlorophyll (FLUO™), mycotoxins (Detox™), water and oil content.

#### REJECTION

The ejection system uses an optimal pitch for enhanced removal of defects. The Nimbus BSI can be equipped with a rear ejection system with small pitch ejectors for greater flexibility, lower false reject and improved yield.

#### BENEFITS

- +User friendly
- +Low maintenance
- +High capacity
- +Optimised sort
- +Increased uptime, quality, throughput and yield

#### FEATURES

- +Pre- and reverse recycle sort
- +Unique signature identification
- +Huge contrast between good and bad
- +Easy to set & operate; one program fits all varieties

#### APPLICATIONS

##### Nuts:

- +Almonds, cashews, hazelnuts
- +Peanuts, pecans, pistachios
- +Sunflower seeds
- +Walnuts, pine nuts, Brazil nuts

##### Dried fruit:

- +Raisins

And many many more ..

#### Gentle product handling is assured by design

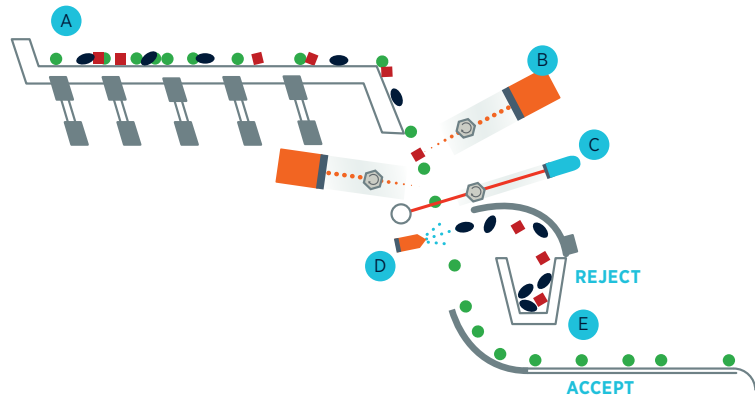


The Nimbus's lasers and BSI module inspects peanuts during free-fall.

## WORKING PRINCIPLE

A feed shaker or hopper uniformly spreads the product over the free-fall chute. The product falls down towards the inspection zone, where it is scanned by the BSI module, lasers or a combination thereof. 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 or hopper (unsorted)
- B** BSI module
- C** Lasers
- D** Precise air guns
- E** Accept / Reject



Other configurations available according to sorting requirements.

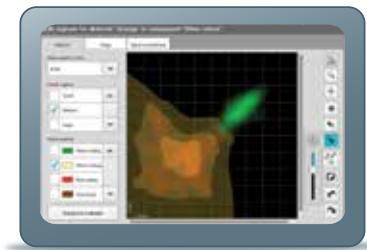
### 1 BSI

Developed in-house, the unique BSI technology (patent pending) works by detecting the biometric characteristics of objects it scans and compares them to features in its stored database, to determine whether they should be accepted or rejected. The Nimbus is an ideal pre-sorting machine thanks to the integration of the BSI technology.

The increased versatility the innovation provides, also enhances the system's ability to operate in other areas of the production line - it's now also the perfect re-sort or recycle unit, for minimizing good product loss, for example.

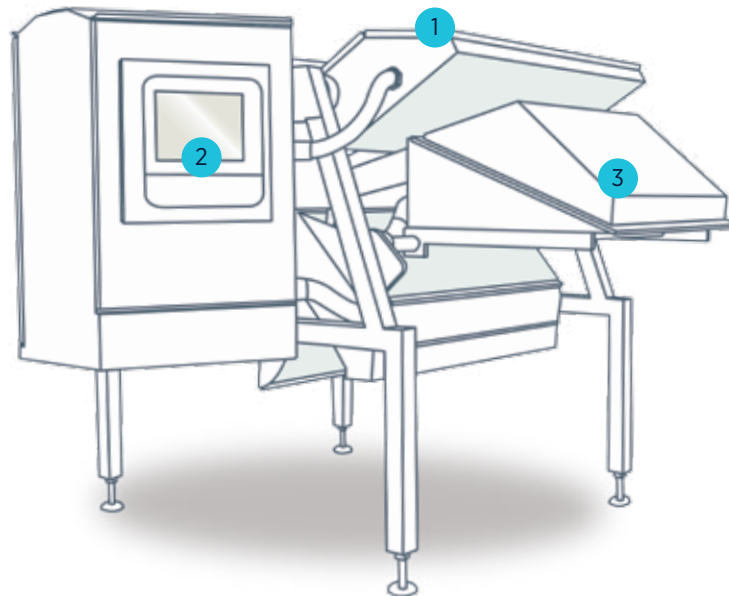
### 2 EASE OF USE

Quality control and feedback are secured by the integration of the easy to use Common User Interface (CUI) and Common Sorting Platform (CSP). Thanks to the PAX system, customers or TOMRA Sorting service engineers can also access the machine settings from anywhere in the world, limiting potential downtime to a minimum.



### 3 LASERS

Multiple high resolution lasers for front and/ or rear inspection allow an optimal detection of color, structure and biological characteristics.



### ADVANCED SORTING PARAMETERS & TECHNOLOGY

- Color
- Subtle Defects
- SWIR
- Biological Characteristics
- Data
- Blemishes
- Damage
- Foreign Material
- Advanced Foreign Material Detection
- Detox™
- FLUO™
- BSI

## DIMENSIONS AND SPECIFICATIONS

Model	Dimensions				Utilities	
	Width	Length	Height	Infeed Elevation	Power	Air
<b>NIMBUS BSI 640</b>	2133 mm (84")	3395 mm (133,7")	2408 mm (94,8")	2080 mm (81,9")	1ph: 4kVA + 3ph: 2,5kVA	6-7 bar
<b>NIMBUS BSI 1200</b>	3010 mm (118,5")	5505 mm (216,5")	2260 mm (89")	1850 mm (72,8")	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.**



**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](http://tomra.com/food)  
E: [food-sorting@tomra.com](mailto: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](http://tomra.com/food)  
E: [food-sorting-us@tomra.com](mailto: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](http://tomra.com/food)  
E: [food-sorting-asia@tomra.com](mailto:food-sorting-asia@tomra.com)