optimum SORTING

FRUIT

MAXIMUM YIELD, CONSISTENT QUALITY

Unlock more value
from your fruit processing
with our intelligent optical
sorting technology





YOUR CHALLENGE:

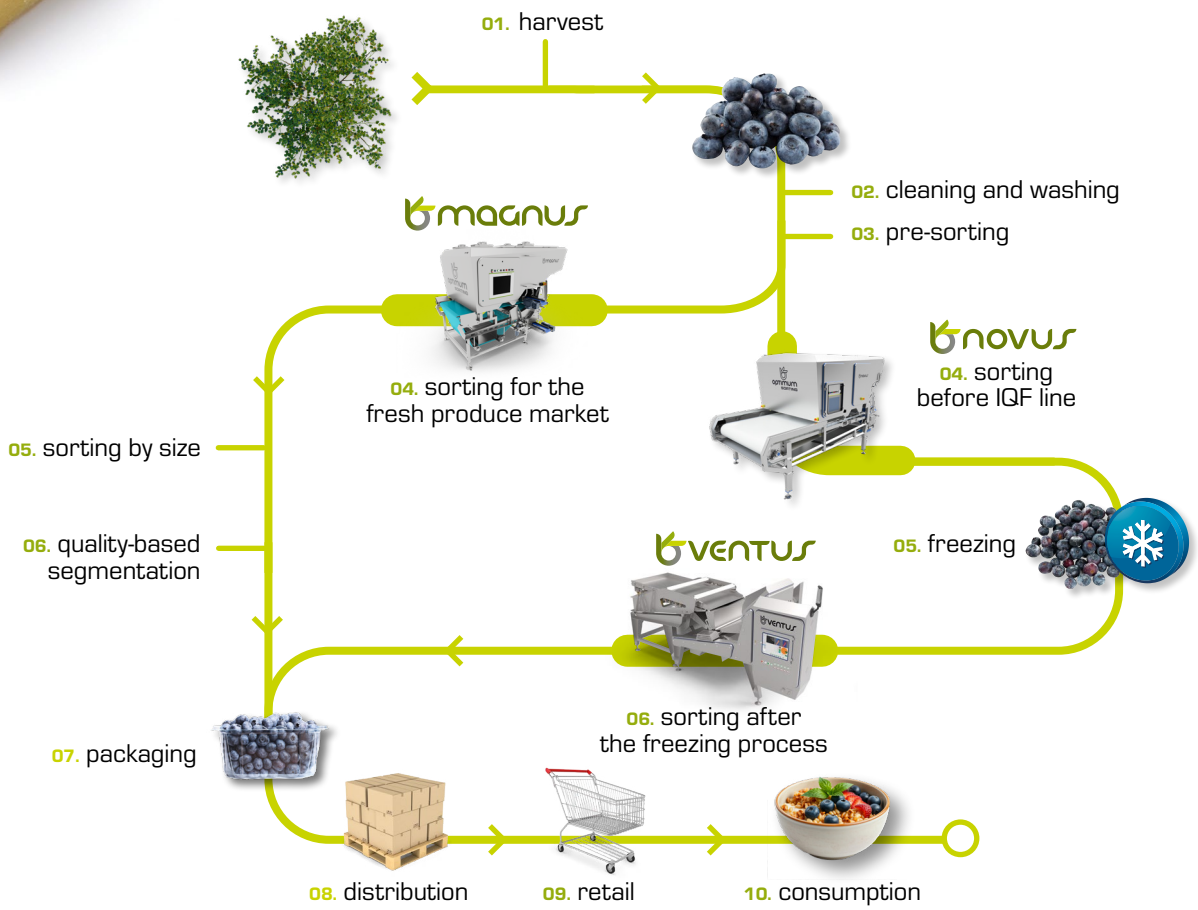
How to maximize yield from every harvest?



For fruit processors, every detail matters. When working with soft and delicate fruits like blueberries, raspberries or cherries, the challenge is clear: sorting quickly and precisely without compromising quality is essential. A drop in quality leads to a decline in market value, which ultimately affects your return on investment.

Manual sorting may have been the standard in the past, but today's competitive market demands more: more speed, more accuracy, and more consistency. That's where the technology of Optimum Sorting comes into play.

Our advanced sorting machines are built to meet the highest standards in modern fruit processing. Whether you're working with fresh, frozen or dried fruit, including mixed fruit applications, our systems ensure fast, efficient and gentle sorting that preserves the integrity of every piece. This leads to consistent top quality, satisfied customers and maximum yield from every harvest.



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PERFECTION YOU CAN SEE IN EVERY PIECE OF FRUIT

OUR SERVICE = YOUR OPERATIONAL RELIABILITY

Integration
To integrate your solution, we rely on our network of specialized partners. After all, every production line is different and requires a tailor-made approach.

Training
We train your operators at your place, at the installation site or in our offices, so that they can optimally use your sorting systems.

Remote access
Our service engineers can be reached 24/7, by phone or E-mail. Thanks to secure remote access, they can quickly make a diagnosis and if necessary, immediately decide to arrange an on-site intervention.

Customized service
No maintenance contracts are needed to make sure you get the best available service for your installed sorters.

OUR SOLUTION

Optimum Sorting offers a wide range of tailored solutions for sorting fresh, frozen and dried fruit. From delicate soft fruit like berries to robust products like chopped apples or even frozen fruit mixes, the right sorting technology is available for every application.

For delicate fruit varieties such as blueberries, cranberries and cherries, the Magnus sorter provides the perfect solution. This all-in-one sorting machine combines camera and laser technology with a unique transport system featuring 64 O-shaped strings, ensuring exceptionally gentle handling. This reduces damage and product loss, while maintaining high sorting accuracy.



Thanks to its advanced inspection technology, the Magnus detects a wide range of quality defects. Discolorations, damage and other visual imperfections are identified with high precision, while foreign objects such as twigs, stones and other unwanted materials are reliably removed from the product stream. In addition, the machine can detect berries with an overly soft texture, which often indicates overripeness or early-stage decay.

For less delicate fruit and higher volumes, the Novus and Ventus sorters remain the benchmark. They quickly and reliably detect discolorations, shape deviations and foreign objects, ensuring a consistent and efficient sorting process. The Novus belt sorter is specifically designed for sorting fresh fruit, while the Ventus free-fall sorter excels in applications involving frozen and dried products.

All our technologies work seamlessly together to deliver intelligent and sustainable sorting performance. With Optimum Sorting, you're ready to meet today's challenges and seize tomorrow's opportunities.

SCAN OR CLICK

INTERESTED IN A FREE DEMO?

Get in touch with the sales team of Optimum Sorting and have your products tested at one of our demo centers around the globe. Experience firsthand the benefits our machines can bring to your business!



OPTIMAL DETECTION AND SORTING

PINPOINT IMPERFECTIONS WITH ACCURACY

Most image processing algorithms reduce the RGBi signal of a color camera from four to two dimensions, resulting in loss of valuable information. We make sure all signals, both from the cameras and from the different lasers, are interpreted simultaneously by means of our algorithms, resulting in a more accurate detection of foreign objects and defects, plus a lower risk of false detections.

REMOVE DEFECTS WITH PRECISION

Precise defect detection is meaningless without an equally precise ejection system. Our air valves have a center-to-center distance of 7.5 mm (0.29 in), compared to the standard 10 mm (0.39 in). This means more valves can blow more effectively, enhancing ejection accuracy. Additionally, we offer a high-resolution valve system with a center-to-center distance of 4.6 mm (0.18 in) for specific applications.

FINE-TUNE WITH DETAILED DATA

Why not use the data recorded by the cameras to adjust your sorting process where necessary? An optional module filters this data to parameters of your choice (length-width ratio, shape, color, defect level, etc.) and makes them available to your operators in a clear numerical or graphical way, so that they can intervene if desired. This module provides the foundation for sort-to-spec.

EXCEPTIONAL USER-FRIENDLINESS

QUICK AND EASY CALIBRATION

Establishing acceptance thresholds can be a lengthy and complicated process. But with systems of Optimum Sorting, it's different. Your operators don't have to deal with graphs or formulas. Our machines are able to calibrate themselves by using images of acceptable and unacceptable products.

INTUITIVE INTERFACE

Operating our sorting machines is incredibly simple, thanks to our user-friendly and intuitive graphical user interface (GUI). This interface is designed to ensure that your operators can effortlessly access and view all relevant information at a glance, making the entire sorting process smooth and efficient.

REMOTE CONTROL

If you want to operate your sorting machines centrally, then no problem! Our solutions are easily integrated into your network, so that your operators and supervisors can keep an eye on things from any network computer.

SUPERIOR DESIGN AND HYGIENE

EASY TO CLEAN

Optimum Sorting systems are made from stainless steel and all components to be cleaned are easily accessible. This way hygiene is guaranteed and cleaning costs you hardly any time and effort. Furthermore, our machines are designed to prevent any contamination from impacting the sorting efficiency.

RELIABLE EFFICIENCY

Our sorters excel in stability, which means that your sorting process requires virtually no manual intervention. You can switch from one product to another or from one specification to another with just one press of a button. And finally, their sturdy construction offers you a maximum uptime with minimum maintenance.



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SORTING SMARTER
WASTING LESS
SHAPING TOMORROW



novus

SCAN OR CLICK

Our Novus belt sorter is a versatile and efficient solution for accurately sorting a wide range of fresh fruit, including cut apples, cherries, strawberries and raspberries (for further processing in IQF applications). Thanks to its flexibility, the machine handles both delicate products and high-capacity operations with ease.

The Novus is available in a range of configurations, with a scan width of up to 2400 mm (94 in), making it one of the largest belt sorters on the market. It is ideal for processing exceptionally high volumes without compromising on precision. Its robust build and intelligent design ensure reliable performance, even in demanding production environments.

Depending on its width and application, the Novus sorting machine features 3, 6 or 9 advanced high-resolution cameras, ensuring optimal defect detection and precise separation of good and defective product. Variations in color, shape and size are detected quickly and accurately, resulting in consistent product quality and reduced product loss.

Optional laser sensors detect foreign material, taking sorting accuracy to the next level. This added detection layer enhances quality control and significantly boosts the reliability of the sorting process.

- Widest optical belt sorter
- Excellent good-to-bad ratio
- Unique 3-in-1 combination of camera, laser and metal detection
- Fast product switching
- Advanced sorting software using AI



magnus

SCAN OR CLICK

Sorting soft fruit requires extra care. That's why Optimum Sorting developed the Magnus belt sorter: a unique solution for accurately sorting delicate products such as fresh blueberries, cranberries and cherries.

Thanks to its innovative string conveyor, even the most delicate fruits are handled with exceptional care. This results in fewer bruises, reduced product loss and a longer shelf life, ensuring your product reaches customers in perfect condition.

The Magnus also stands out for its flexibility. Its compact design allows a seamless integration into existing lines. It combines color and structural sorting in a single system, reducing the need for multiple machines, lowering maintenance and cutting costs. The Magnus sorter analyses each product in detail, reliably detecting even the smallest defects and foreign materials. This enables highly accurate product separation, minimises false rejects and maximises yield.

- One-of-a-kind O-ring belt sorter
- Compact design
- Manual labor savings
- Maintenance & user friendly
- A wide range of upgrade and integration options



VENTUS

SCAN OR CLICK

The Ventus free-fall laser sorter provides a reliable solution for accurately sorting fresh fruit, frozen products and dried fruits, including apricots, raisins, figs and plums.

Its dual-sided sorting principle and scan widths of up to 1800 mm (71 in) enable efficient processing of large product flows without compromising accuracy. High capacity and consistent quality are maintained, even at peak volumes.

Unacceptable products can be categorized into several classes, such as foreign material (including, stones, glass and metal), color or shape defects. The Ventus can distinguish 8 classes of deviations and process them differently if necessary. In order to obtain an excellent good to bad ratio even for the very smallest products and impurities such as stalks or wood splinters, the Ventus can be equipped with ultra-fast and small ejection valves with a center-to-center distance of 4.6 mm (0.18 in).

- Available in 4 scan widths
- Sorting based on color, shape, structure and biological properties
- Robust, advanced lasers
- Superior resolution
- Advanced sorting software using AI



MODULAR DESIGN

Thanks to their modular design, our machines can be effortlessly tailored to meet your unique processing needs. And as your business evolves, so can our technology. Each system is fully field-upgradable, allowing you to seamlessly integrate the latest innovations and scale alongside new opportunities.

■ standard ○ option × not available

		NOVUS	MAGNUS	VENTUS
Type		Belt sorter	O-ring belt sorter	Free-fall laser sorter
Application		Fresh fruit (for IQF processing)	Soft fruit for the fresh produce market (berries and cherries)	Frozen fruit, fresh fruit (for IQF processing) or dried fruit
Inspection width		600 mm, 900 mm, 1200 mm or 1800 mm *24 in, 35 in, 47 in or 71 in*	1000 mm *39 in*	600 mm, 1200 mm, 1800 mm or 2400 mm *24 in, 47 in, 71 in or 94 in*
Camera	MC, RGB	■	■	×
	IRGB	○	×	×
Laser	R, IR, G, DB, Fluo	○	○	○
	SWIR	○	×	○
Double-sided inspection		○	×	○
Sorting mode		Two-way or three-way	Two-way or three-way	Two-way
Air valves	Pitch 4.60 mm • *0.18 in*	×	×	○
	Pitch 5.25 mm • *0.21 in*	○	×	×
	Pitch 7.50 mm • *0.29 in*	■	×	■
	Pitch 10 mm • *0.39 in*	○	×	○
	Pitch 15 mm • *0.59 in*	×	■	×
Aflatoxin detection technology		○	×	○
Laser configuration for blueberries (detecting soft/rotten fruit)		○	○	○
Laser configuration for apples (including core detection)		○	×	○
Data view*		○	○	○

* This module is being continuously developed. Contact us for an up-to-date overview of the functionalities.

optimum SORTING

USA +1 (720) 586 6545
Belgium +32 (0)11 71 80 20

info@optimum-sorting.com
www.optimum-sorting.com

More info?

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