

PRIMUS GEMINI OPTICAL SORTER



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OPTICAL SORTER

The ability of the processor to deliver a high-quality end product, that meets the demands of the consumer, is vital to their success. The Primus™ Gemini optical sorter provides this solution while offering a quick payback by the effective removal of soft, shriveled, discolored produces and foreign material.



DETECTION

The Primus™ Gemini detects color and structure from a stream of good produces. This new generation of O-ring belt sorters combines the efficiency of laser detection on foreign material (leaves, stems, insects, plastic, ...) and soft or shriveled produces, together with the camera sorting on discolorations. In addition to these conventional sorting methods, the Primus™ Gemini is also capable to sort based on the chlorophyll level of the incoming produces.

REJECTION

In the first stage the Primus™ Gemini sorter removes defects on color with a high resolution camera. In the second stage the sorter removes the structural defects using laser technology. Both operations are integrated in one sorter, minimizing drops.

APPLICATIONS

- Blueberries
- Cherries
- Cranberries
- Olives
- Raspberries (IQF)
- Redberries
- Strawberries

BENEFITS OF THE PRIMUS™ GEMINI

- Reduce of damage while separating two reject streams.
- Gentle handling ensures increased profitability.
- Higher yield and throughput.
- Reduced labor requirements.
- Advanced Shriveled Detector of berries.
- Increase of the uniformity of color in the pack.
- Salvage of traditionally un-economic fruit.
- Extremely fast payback on investment.

Higher grade produce for increased profitability



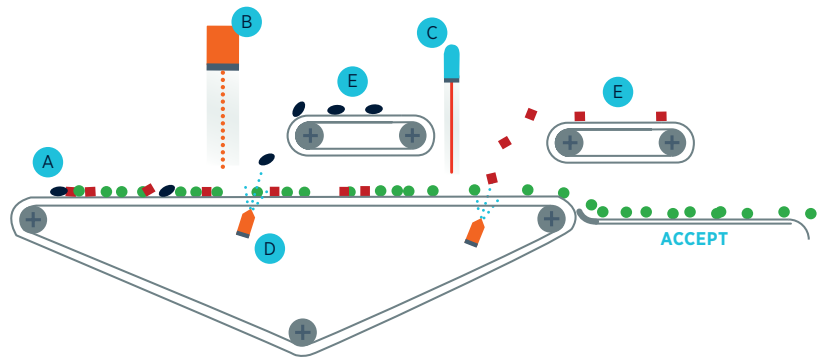
The "O-ring" belt's gentle handling reduces the risk of damaged product.

WORKING PRINCIPLE

Multiple O-ring belts singulate the product to be sorted into perfectly aligned lanes. The first inspection zone checks the material with camera on color differences and removes any off-color products. In the second inspection zone, the product is checked on structure by lasers, removing foreign material as well as soft or damaged fruit. The defects are ejected by an upward air puff and collected on a reject belt. By ejecting upwards, the good product is not disturbed nor subjected to damage by drops or high acceleration forces.

- A Infeed (unsorted)
- B Camera
- C Laser

- D Precise air guns
- E Rejectstream 1 and 2



1 HIGH CAPACITY & LOW MAINTENANCE

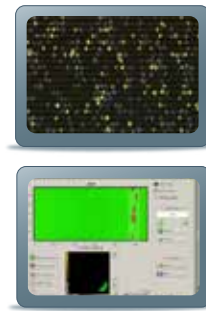
High capacity and low maintenance are guaranteed by an innovative O-ring belt system, significantly reducing the involvement of manual labor.

2 FLEXIBILITY & GENTLE HANDLING

Flexibility and gentle handling are given by design. The system minimizes drops without compromising inspection accuracy.

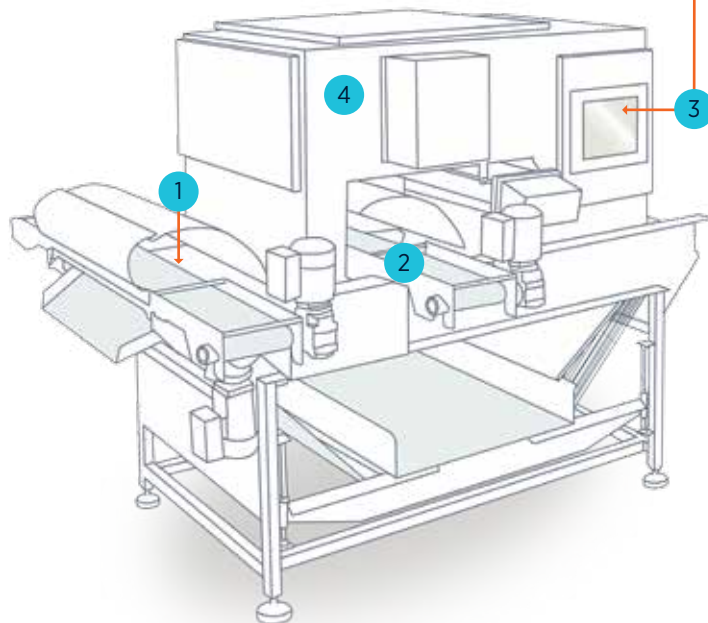
3 EASE OF USE

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



4 OPTIMAL INSPECTION

The Primus™ Gemini offers different inspection technologies located in several inspection zones, to provide enhanced detection efficiency. High resolution cameras and lasers are combined with different types of illumination which are adapted, depending on the application.



ADVANCED SORTING PARAMETERS & TECHNOLOGY

- Color
- Damage (hail)
- Foreign Material
- FLUO™
- Advanced Shriveled Detector

DIMENSIONS AND SPECIFICATIONS

Model	Dimensions				Utilities		
	Width	Length	Height	Infeed Elevation	Power	Air	Water (max)
PRIMUS GEMINI	1987 mm (78,3")	2629 mm (103,5")	2081 - 3065 mm (81,9" - 120,6")	1174 mm (46,1")	3 kVA	6 - 7 bar	1 - 3 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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