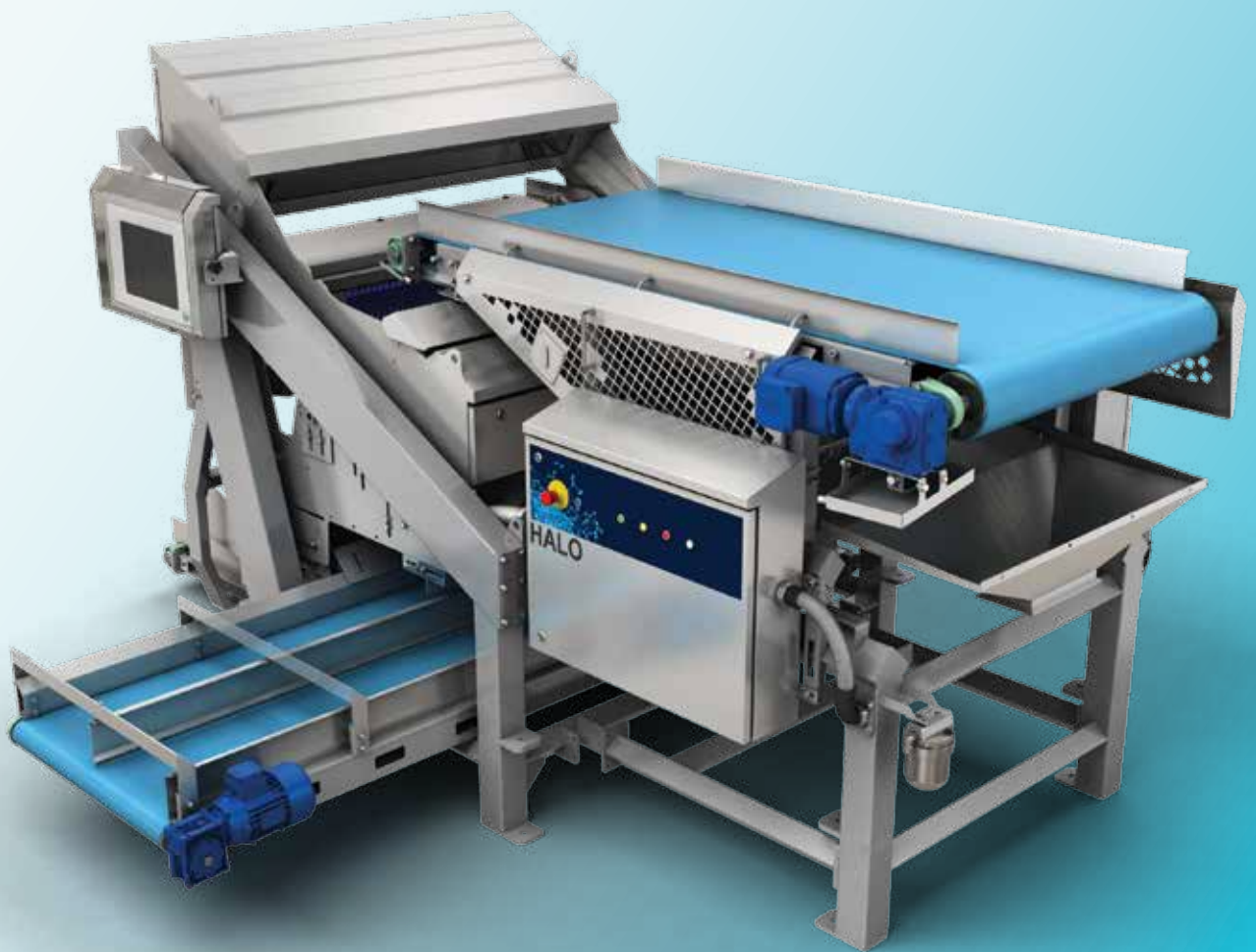


HALO

OPTICAL SORTER



HALO

OPTICAL SORTER

The Halo is the latest advancement in sensor based optical sorters for a high performance sort/grade on quality, size and for food safety. The Halo combines intelligence with advanced control to provide sort flexibility and accuracy in a reliable, long life, compact sorter.



DETECTION

The Halo uses top and bottom sensor banks to view each individual object 'in flight' using a combination of LED, CCD camera and NIR (Near Infra Red) to perform targeted spectroscopy with 1 mm precision. This advanced system views and analyses visible attributes (colour, shape, blemish, foreign material, etc.) as well as those difficult to see or 'invisible' defects to the product composition. The result is a highly accurate, flexible and controllable sort.

REJECTION

Gentle product handling is assured by design; the 1st grade produce gently pass through the machine while 2nd & 3rd grade are redirected into individual streams by intelligent finger ejectors with precision and accuracy. More grading options are also available.

BENEFITS OF THE HALO

- +Reduces labor requirements up to 80%.
- +Faster pack, increased throughput up to 25%.
- +Increased yield.
- +Lower operational costs
- +Fast payback on investment.
- +Easy to install.

PROCESSOR APPLICATIONS

- +Potato (skin on & peeled)
- +Carrot
- +Peach (halves)
- +Pear (halves)
- +Tomato
- +Citrus (Oranges, Mandarines, etc)
- +Onion
- +Apricots

FRESH/PACK APPLICATIONS

- +Potato (salad / small)
- +Potato (main crop & large)
- +Potato Russet
- +Carrots & Parsnips
- +Pickles, Cucumbers, Gherkins
- +Onion
- +Tomato
- +Sweet Potato
- +Peppers
- +Brussel Sprouts
- +Red Beets
- +Radish

Gentle product handling is assured by design



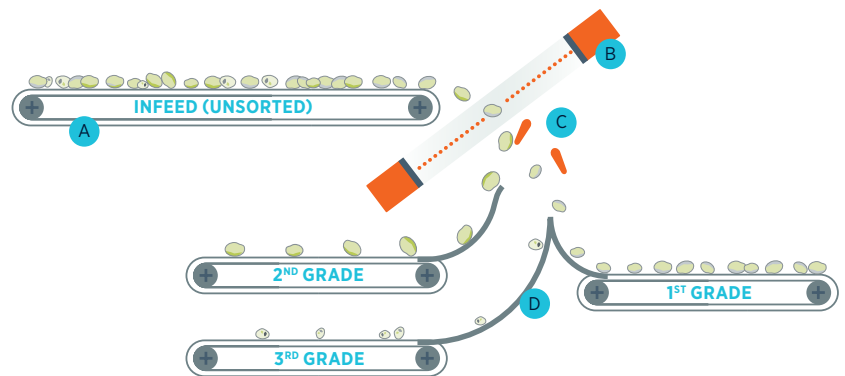
The HALO's NIR optical sensors sorts carrot product for shipment.

WORKING PRINCIPLE

The product is spread uniformly onto the infeed belt and will be scanned by cameras on both sides. A few milliseconds later one type of material will be rejected by intelligent finger ejectors, positioned at the end of the infeed belt, while the other produce continue their way along the sorting line.

- A** Infeed (unsorted)
- B** Full width LED, CCD camera and NIR sensors (both sides viewed)

- C** Intelligent finger ejectors
- D** Gentle handling convey chutes (optional)



1 HIGH CAPACITY & LOW MAINTENANCE

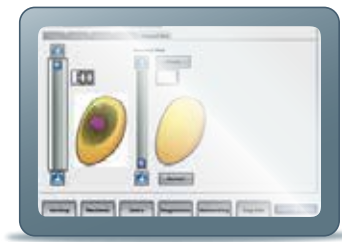
High capacity and low maintenance are guaranteed by a simple belt feed system. This keeps installation and running costs low and reduces the risk of stoppages.

2 FLEXIBILITY & GENTLE HANDLING

Flexibility and gentle handling are given by design. Accept product passes smoothly through the sorter while intelligent low wear ejectors manage additional grades.

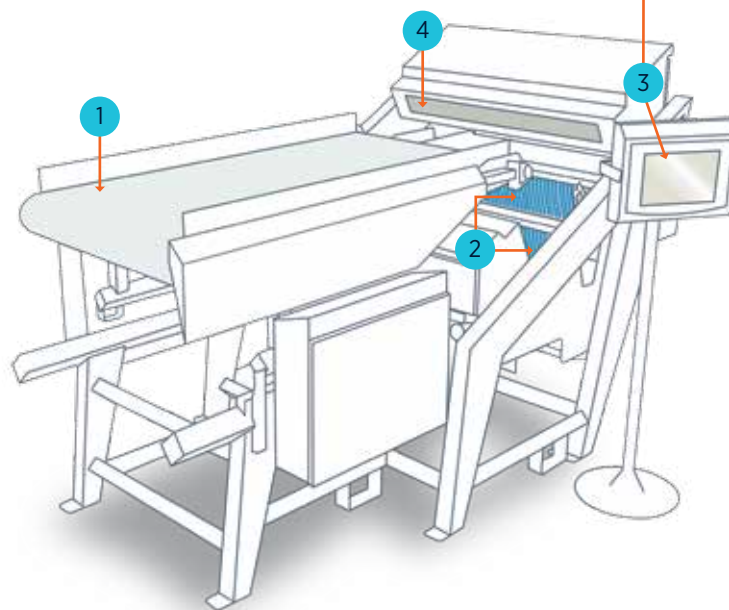
3 QUALITY CONTROL & FEEDBACK

Quality control and feedback are secured by the intuitive touch screen. Dashboard information on sort and line performance gives a highly detailed view of efficiency with data/ trends on flow, grades/reject rate, etc.



4 CONSISTENT LONG LIFE ACCURACY

Consistent long life accuracy even on subtle color defects is provided by LED sensor technology. The 'off-belt' view guarantees a clear view and low maintenance.



ADVANCED SORTING PARAMETERS

- Detailed Size / Geometry
- Detailed Shape/ profile
- Subtle Color Defect
- Small Defect
- Small Blemishes
- Damage
- Foreign Material

DIMENSIONS AND SPECIFICATIONS

Model	Dimensions				Utilities			Capacity
	Width	Length	Height	Infeed Belt	Power	Air	Water (max)	Max Capacity (kg/h)
HALO 500	1350 mm (53")	3120 mm (147")	1750 mm (83")	500 mm (20")	0.3 kVA	70 l/min	1.2 l/min	3 - 14,000
HALO 1000	1850 mm (73")	3120 mm (147")	1750 mm (83")	1000 mm (40")	1.0 kVA	120 l/min	2.0 l/min	8 - 30,000
HALO 1500	2350 mm (93")	3120 mm (147")	1750 mm (83")	1500 mm (60")	2.0 kVA	180 l/min	2.5 l/min	12 - 45,000
HALO 2000	2850 mm (112")	3120 mm (150")	1750 mm (83")	2000 mm (80")	3.3 kVA	240 l/min	3.0 l/min	16 - 60,000

*Information shown for reference and may change depending on the application



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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