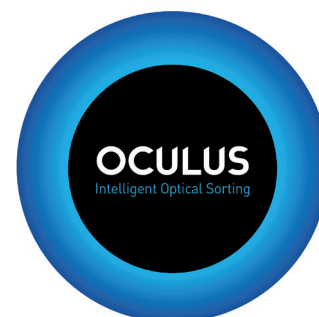
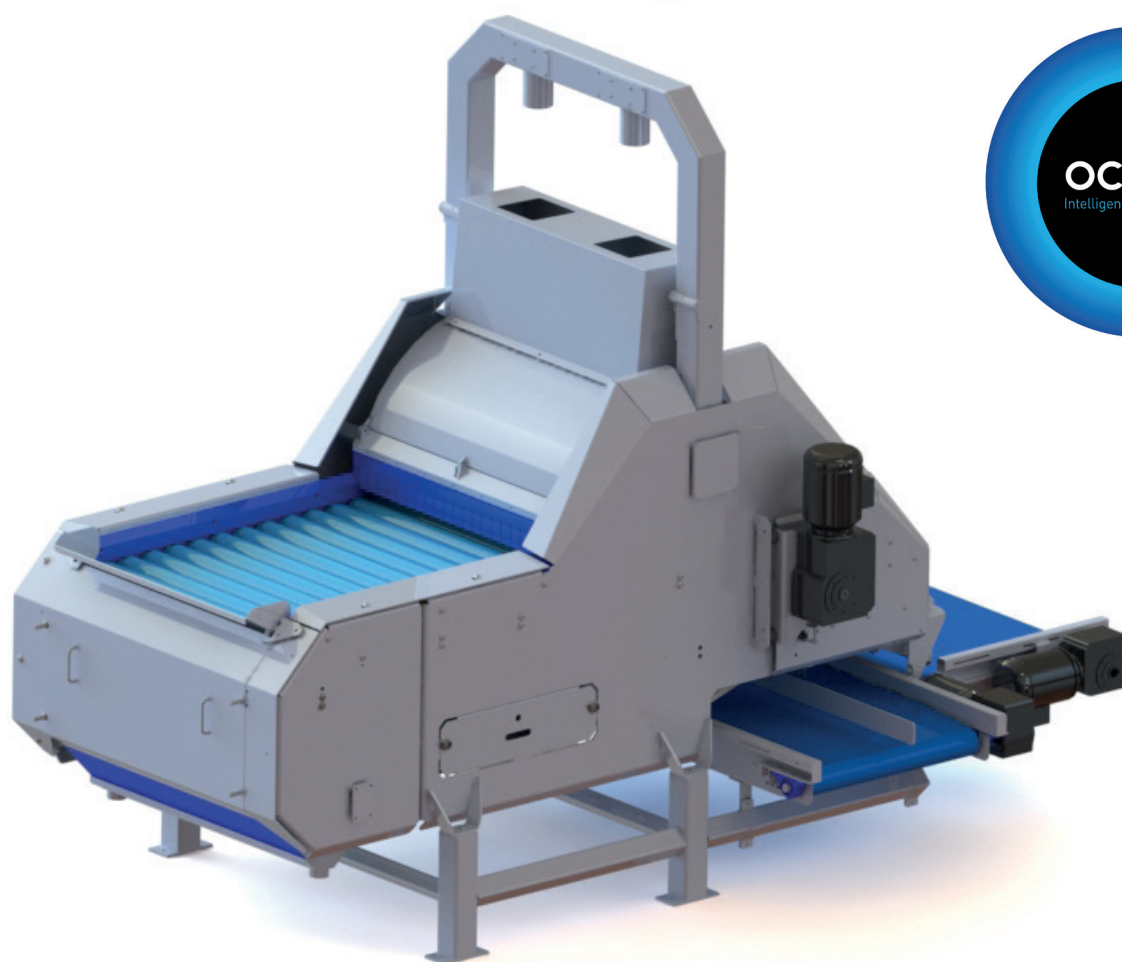


SORTING

Herbert Oculus


A new vision in optical sorting...
for washed and peeled potatoes



Intelligent Optical Sorting

A new vision in optical sorting for washed and peeled potatoes

We treasure your roots

The logo for OCULUS Intelligent Optical Sorting is centered in the upper half of the page. It consists of a large blue circle with a white border. Inside this circle is a smaller black circle. The word "OCULUS" is written in large, white, bold, sans-serif capital letters across the black circle. Below it, the words "Intelligent Optical Sorting" are written in a smaller, blue, sans-serif font. The background of the entire page is a photograph of several golden-brown potatoes, some resting on a piece of burlap fabric. A small pile of potatoes is also visible in the lower-left quadrant of the page.

OCULUS

Intelligent Optical Sorting

Designed for
quick easy clean
down and routine
maintenance

The next generation in **intelligent optical sorting**

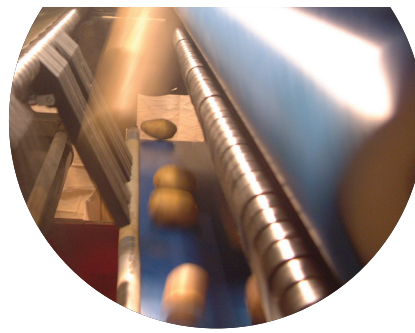
OCULUS heralds the next generation in high performance, compact, optical sorters for washed and peeled potatoes. Available in four sizes, 450, 1300, 2000 and 2400 OCULUS' development is an exciting advance in optical sorting that delivers more accurate, more efficient, more consistent and more effective sorting. This means better quality produce for end users and lower costs for growers, packers and processors. OCULUS also provides better quality throughput, ultimate flexibility of grading, increased detection of reject produce and, importantly, better food safety. OCULUS: from Herbert Engineering, the leaders in handling systems for the agricultural, fresh pack and processing industries.



Reduces your labour requirement and gives excellent return on capital investment

Improve throughput, increase quality and consistency, improve food safety and save costs...

- Up to 16 images of the surface of each individual potato
- Roller system that provides a complete 360° rotation of the tuber
- Sorts by size, shape, colour and texture of the surface
- Highly accurate grading for food safety defects, including rot, greens, scurf, mechanical damage and growth cracks
- Flexible sorting into three grades with any grade directed to any outfeed
- Outstanding gentle handling of the crop with low drop points
- High grading performance: up to 95% efficient
- Detailed data collection of grading results and throughput, with data easily exported to an Excel document
- Capable of sorting both peeled and washed potatoes
- 20% more surface area seen over typical 'cascade' sorter



Flexible finger selection

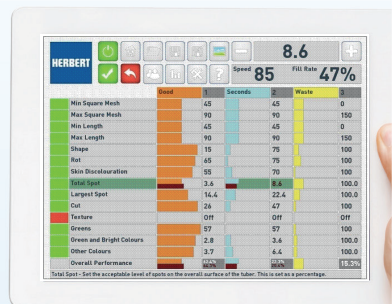
New finger bank selection mechanism for more accurate and gentle directing of crop to outfeed conveyors.

Designed 100% with our customers, for our customers

Continuous innovation and product development is key in our business. Optical sorting is driven by innovation, with camera and lighting technologies progressing quickly. Herbert is at the forefront of this innovation, optimising opportunities for the most accurate sorting by offering the most detailed digital resolution in the market. Our investment in technology, listening to customers and examining the feedback is how Herbert has developed Oculus, the next generation in high performance optical graders for washed and peeled potatoes.

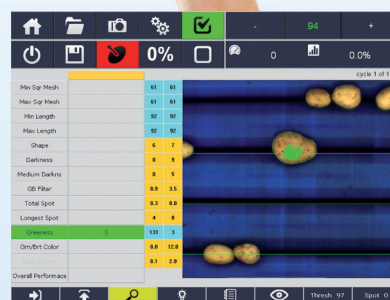
Remote connectivity

Our market leading Oculus is now available with remote access from ipad or any other tablet device via new software that enables the machine to be operated remotely.



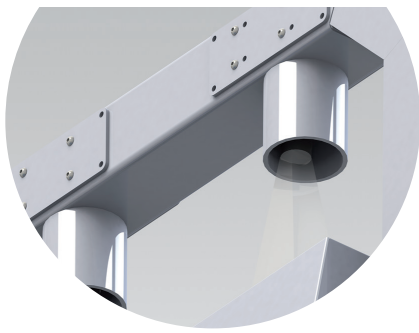
Lower running costs

Lower consumption with power reduction of one third and no loss of performance.



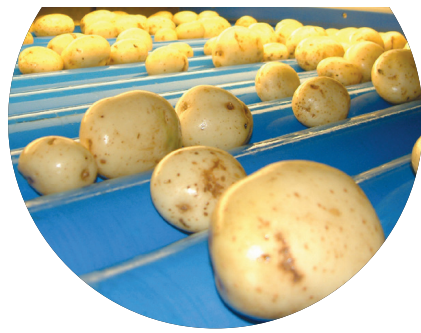
New simple software

Intuitive programming screen, with clear data and thumb-friendly touch screen, plus flexible monitor positioning. The grade settings can be easily adjusted "on the go" system can make predictive analysis before changes are made live.



New lighting and camera system

LED lighting and the latest digital Infrared color cameras deliver market leading resolution of down to 0.01ins sq pixel size for maximum detection of defects.



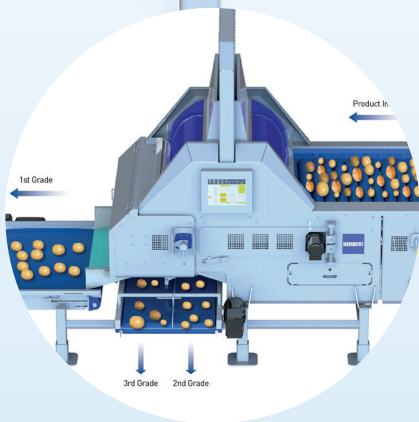
Higher throughput

Wider rollers and more controlled presentation guarantees better vision, increased accuracy of sorting and 10% higher throughput.



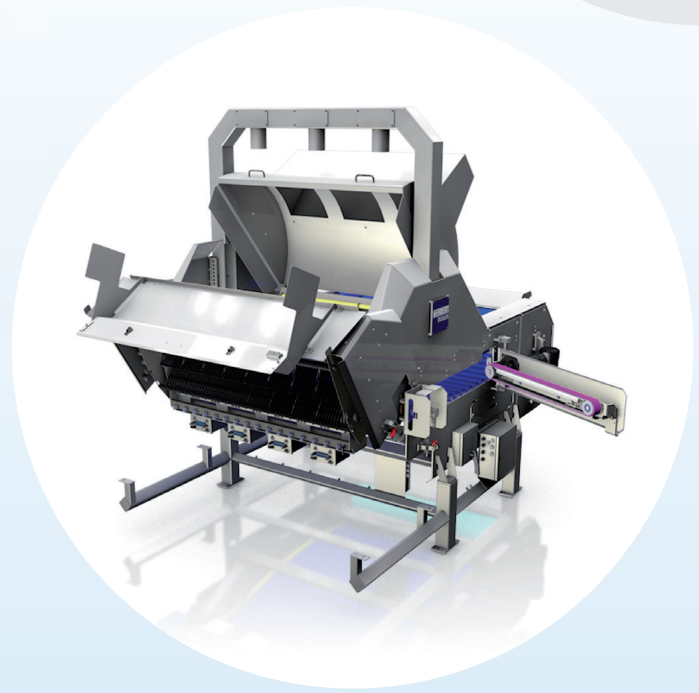
360° vision

More comprehensive sorting with 360° vision and new roller design to allow up to 16 pictures of each fruit for exceptional accuracy of defect identification.



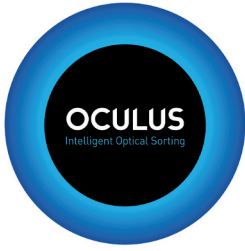
Multiple choice 3 way sort

Greater flexibility as any grade of crop can be directed to any outfeed. Low drop design makes Oculus the most gentle in the industry with no product damage.



Easy cleaning and low maintenance

New exoskeleton design means 30% fewer parts, with more accessible easier maintenance.



More accurate, more efficient, more consistent and **more effective**

Simple design with easy maintenance

With an advanced process industry design specification that uses 30% fewer moving parts, installation, maintenance, downtime and running costs are all reduced. Cleaning is easier too with stainless steel construction and no bug traps.

Intuitive software

New look, simplified software is highly intuitive and easy to use. The thumb-friendly touch screen is designed for a factory environment and analysis and data is easily saved to an Excel document. The computer will indicate why it rejects or accepts specific tubers giving the operator the option to decide whether or not the parameters need adjusting.

Exceptional accuracy

Oculus features remarkable 360° vision. This enables easy and effective inspection of every part of the tuber, infrared cameras for the most effective identification of greens, LED lighting and the latest digital colour cameras delivering market leading resolution of down to 0.25mm sq pixel size with up to 16 pictures of each tuber for exceptional up to 95% accuracy of defect identification.

More for less

In designing Oculus, Herbert has engineered a more efficient sorter that is simpler, easier to operate, with fewer moving parts and with a smaller footprint. This also means that Oculus is offered at a very competitive price, making it excellent value for money.

System Optimisation

Many washers have the capacity to go faster than manual inspection allows. Oculus gives users the opportunity to wash at their most efficient running capacity with most of the inspection done prior to human interaction.

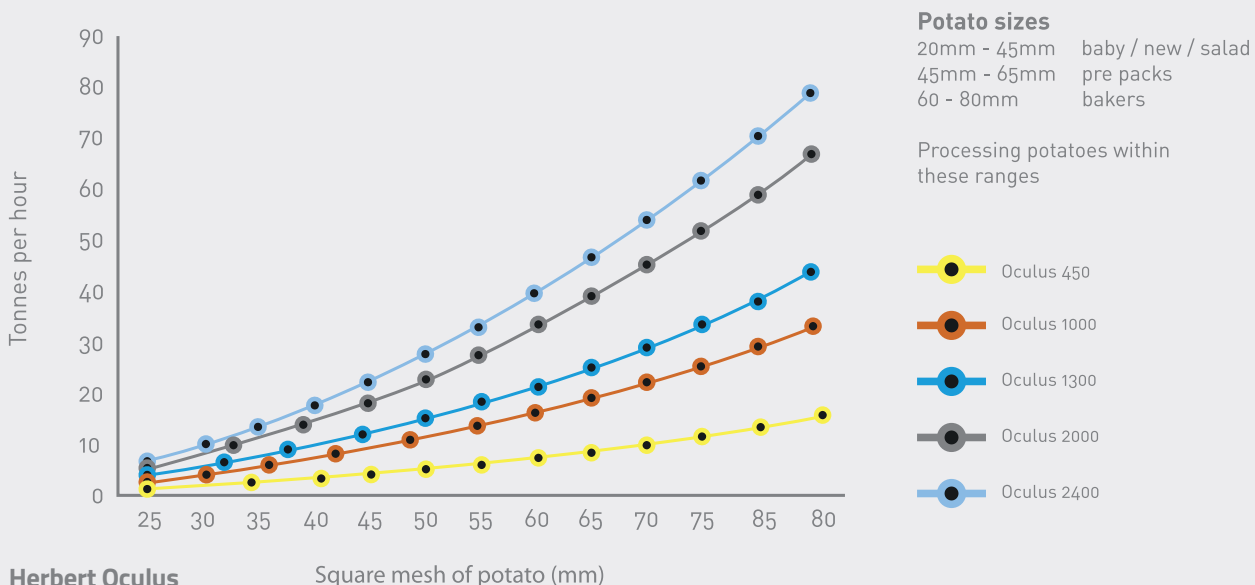
More tonnes per hour of potatoes with fewer people in less time equals improved returns on investment. If fed into a Herbert holding bin, packing weighers will always have a constant supply of produce reducing unnecessary stopping and starting of the washing process and Oculus.

Intelligent design

Oculus' ergonomic design gives improved lines, a better and more attractive machine, as well as being 25% smaller. Set up is also faster and easier, saving time and minimising line disruption.

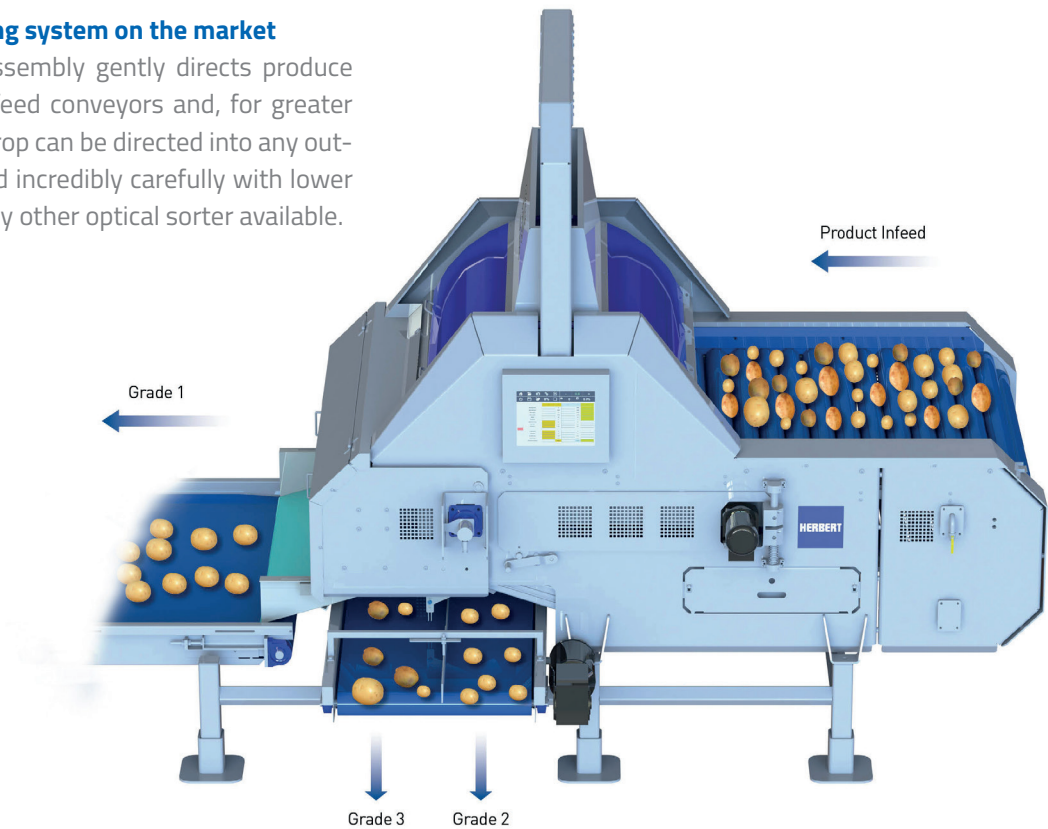
Throughput on average size

The performance of Oculus can be calculated based on individual selection of produce being processed, with tonnes per hour accurately calculated whatever the mix of sizes.



The most gentle handling system on the market

The new finger bank assembly gently directs produce into three different outfeed conveyors and, for greater flexibility, any grade of crop can be directed into any out-feed. The crop is handled incredibly carefully with lower discharge points than any other optical sorter available.



After sales

After you buy an Oculus, Herbert Engineering is still here to support you. Our inclusive training package means that your operators will receive three days set up and training on the Oculus, at no extra cost, to ensure that you will gain optimum performance and efficiency from the machine.

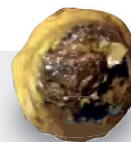
Class leading warranty

The Oculus warranty includes technical remote access support and a six month service with full inspection and calibration. If you should encounter any problems with your Oculus, our engineers are always on hand and will support you all the way.

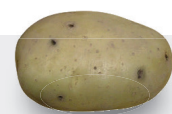
New detection features



Clay Cap - differentiates clay from rot



Jelly Ends (end rot) - digitally magnifies the ends for a more detailed inspection



Wire Worm - detects clusters of dark spots created by larvae

OCULUS effectively and efficiently sorts for surface abnormalities and diseases, such as bumps and notches, skin discoloration, green and dark colours and common defects like:



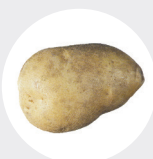
Green and mechanical damage



Common scab



Cracks



Black dot



Rhizoctonia/black scurf



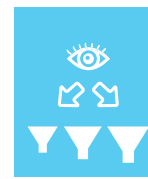
Silver scurf



Rot



Skin spot



SORTING

Technical Data

OCULUS has been engineered using Herbert's 40 years' experience and is designed wholly around the needs of customers, incorporating key features developed specifically with industry experts.

	OCULUS 450	OCULUS 1000	OCULUS 1300	OCULUS 2000	OCULUS 2400
Capacities	up to 7 tph	up to 17 tph	up to 25 tph	up to 37 tph	up to 45 tph
Utilities					
Air	1L/S @ 6 Bar	2 L/S @ 6 Bar	2 L/S @ 6 Bar	3 L/S @ 6 Bar	4 L/S @ 6 Bar
Water	2 Bar Minimum	2 Bar Minimum	2 Bar Minimum	2 Bar Minimum	2 Bar Minimum
Electricity (previously 25amp i.e. 36% less)	16A 3 Phase + Neutral	16A 3 Phase + Neutral	16A 3 Phase + Neutral	16A 3 Phase + Neutral	16A 3 Phase + Neutral
Dimensions					
Length	2500	3090	3090	3090	3090
Width	997	1890	2184	2397	2897
Height	2344	2780	2344	2500	2700
All models are available in 2 or 3 way sort					

Options

Infeed Options

A range of infeed solutions can be provided to ensure an optimum distribution of produce to Oculus. These include vibratory infeed unit, elevator and conveyors.

Outfeed Options

Options are available including a discharge conveyor, roller inspection table or cross conveyor.

Third Grade

With the introduction of a 2nd finger bank a third grade can be taken out. This gives ultimate flexibility to select premium product, second grade and total waste with delivery to any conveyor.

info@herbertsolutions.com

www.herbertsolutions.com

contact@key.net

www.key.net

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Grading



Conveying



Tipping



Washing



Sorting



End of line



Service & Parts



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