



The Job

Sorting potatoes is a demanding job. It requires speed, accuracy, experience and great concentration. No surprise, very few are able to manage grading and sorting by size and quality of **175,000 potatoes an hour** without rejecting a couple of good potatoes - or letting a few bad ones slip through.

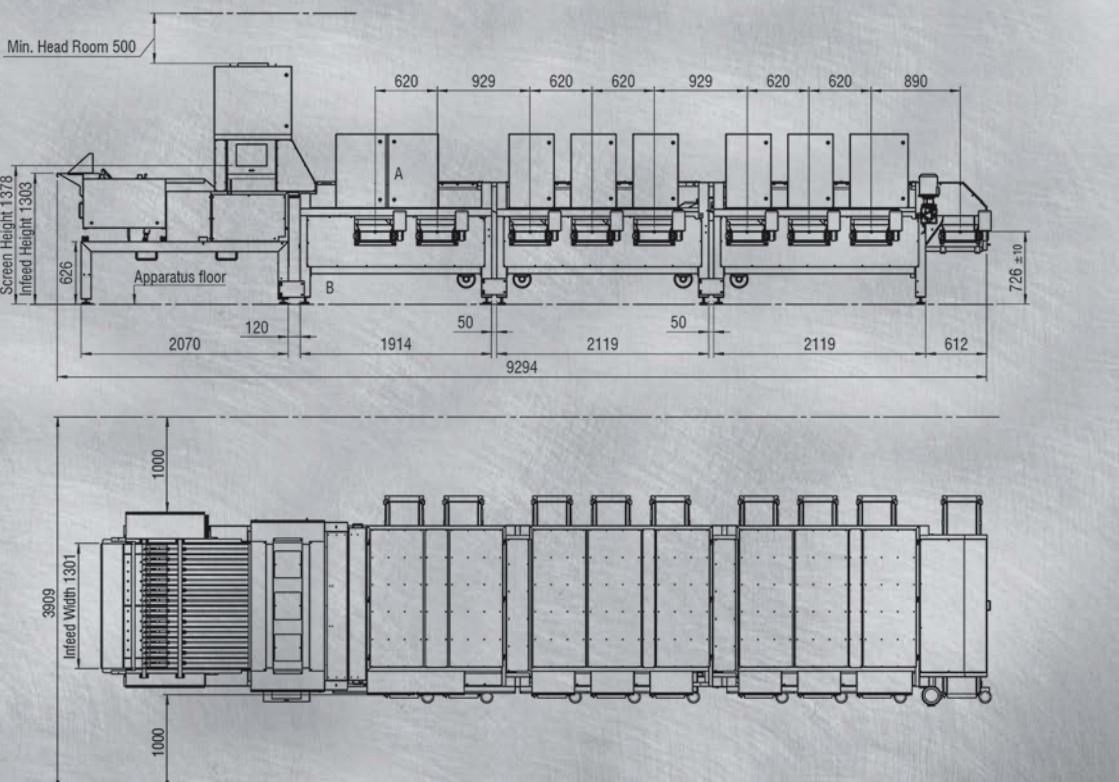
Newtecs Celox XT Optical Grader will manage this job - day after day, all year round enabling you to cope with the rising demand for **consistent grading** to different standards, **accuracy** and **high capacity**.

Intelligent Production

Connected to Web Services, the Celox XT enables you to **work smarter** and provides many ways to increase the **volume and value of your production**.

The Web Services information system provides access to detailed production statistics, traceability management, reports for each outlet, real pictures of the production, product utilization and optimization - all these features are accessible anywhere through an encrypted **Internet connection**. Web Services also provides a powerful set of reports for grower management, comparisons and feedback.

An interface for Production Line Control (PLC) is enabled for line integration.



CELOX XT

Optical Grading Machine



» INNOVATIVE GRADING, SORTING, WEIGHING AND PACKING SOLUTIONS

At Newtec we focus on bringing value to our customers in a constantly developing market. We base our business on long lasting relationships built on trust, quality and innovative solutions.

For more than 35 years, we have produced market leading solutions for grading, sorting, weighing and packing and have installed over 10,000 Newtec machines.

Represented in over 40 countries, Newtec is known worldwide for our flexible customized solutions. Whilst we have standard popular models, we also specialize in building tailor-made solutions for each customer. Consequently, we have installations in a wide variety of industries i.e. vegetables, fish, shrimps, lollipops, charcoal, plastic items, chocolate, processed food etc.

For more information on Newtec solutions, please visit our website www.newtec.com or contact us directly.

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» COMBINED SIZE AND QUALITY GRADING

» UNMATCHED ACCURACY

» HIGH CAPACITY

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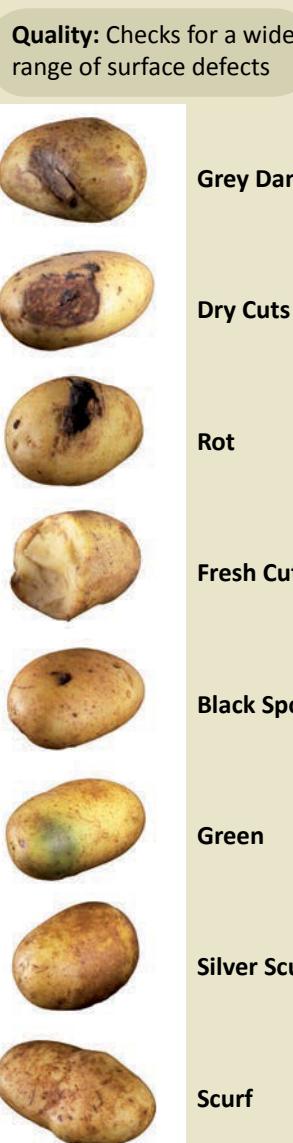
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What is a perfect potato?

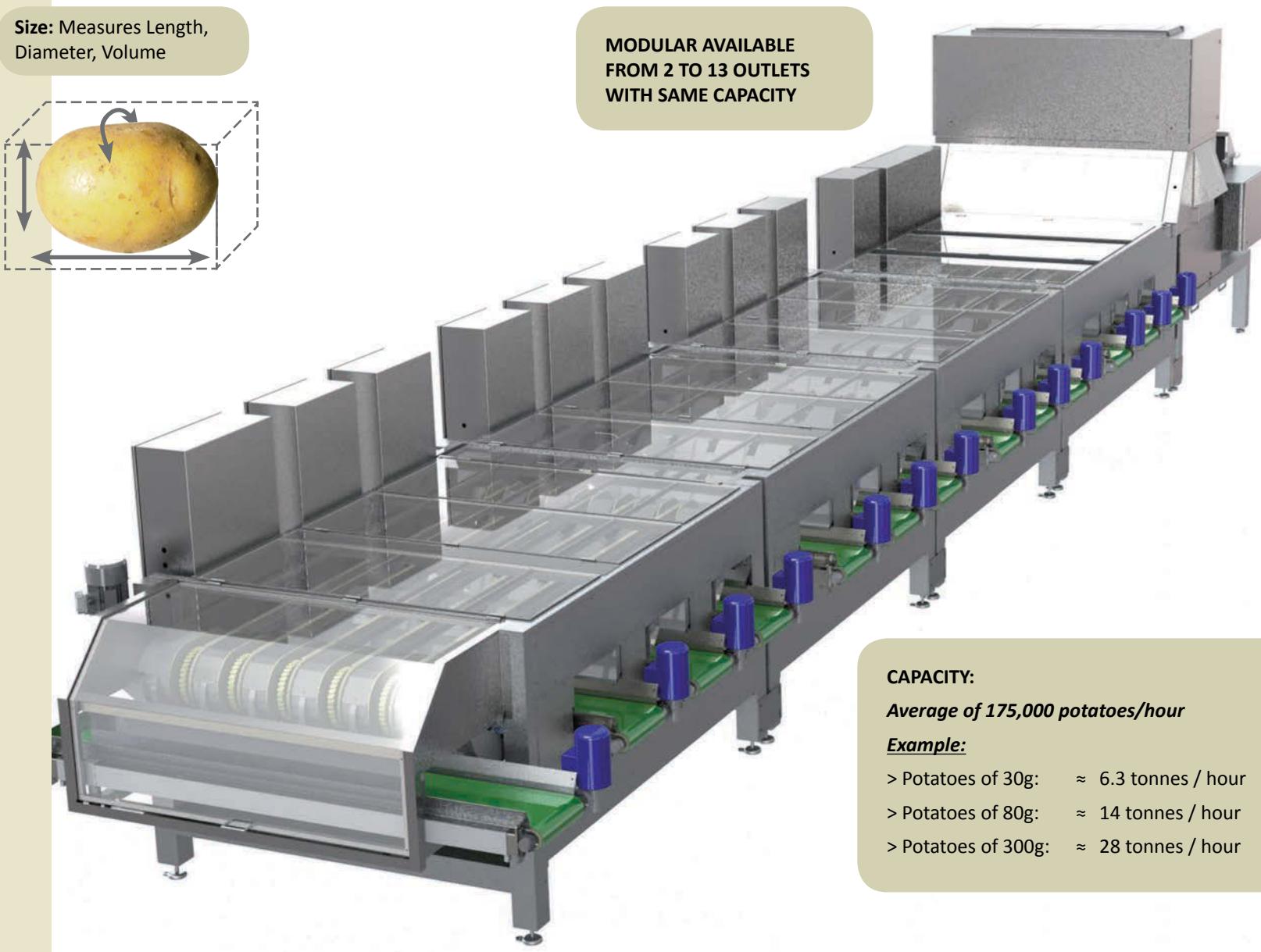
Some want large potatoes, others want them small, and others have completely different requirements for sizes as well as appearance and variety.

So the good potato is a question of getting precisely the **Quality** and **Size** you want.

You will be sure to get this with the Newtec **Celox XT** Optical Grader.



MODULAR AVAILABLE FROM 2 TO 13 OUTLETS WITH SAME CAPACITY



CAPACITY:

Average of 175,000 potatoes/hour

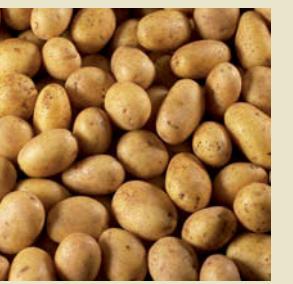
Example:

> Potatoes of 30g: ≈ 6.3 tonnes / hour

> Potatoes of 80g: ≈ 14 tonnes / hour

> Potatoes of 300g: ≈ 28 tonnes / hour

Class A < 50



Class A > 50



Class B



Rejects



» IMPROVED BOTTOM LINE

The advantages of using a Newtec Celox XT Optical Grader extend beyond achieving complete control of quality for customer satisfaction.

The advantages are also very tangible and feed through to the bottom line immediately:

*optimal use of potatoes = profit *lower labour costs = profit *increased throughput = profit

*increased operational reliability = profit *low maintenance cost = profit

AN EXAMPLE of a Celox XT 2+1

Cost Savings

Labour: 6 employees at 25,400 Euro per year	= 152,400 Euro
Reduced consumption of raw material of 1.7% e.g. 510 tonnes at 100,50 Euro per tonne	= 51,255 Euro
Annual saving: 152,400 Euro + 51,255 Euro	= 203,655 Euro

Return of Investment

Appx. Price of Machine	= 203,500 Euro
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Approximate period for **Return of Investment = 12 months**

A Danish packing house whose annual production amounts to about 30,000 tonnes of potatoes has by acquiring a Celox XT saved labour costs of up to 152,400 Euro a year and raw materials costs of 51,255 Euro. 75% of the labour costs of manual sorting have been cut away and the number of errors has been reduced allowing them to exploit their raw material more efficiently. Formerly 15% was rejected including some good potatoes. Celox has managed to reduce the percentage to 13.3% and at the same time, the quality of the end product has improved!

» CONSISTENCY IN QUALITY



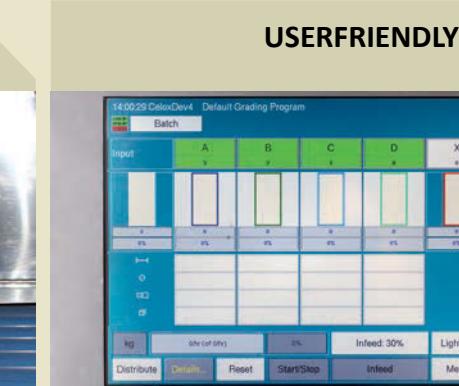
12 Vibrating channel feeders ensure gentle and **efficient separation** of the potatoes as they enter the camera unit.

Vibration technology is a well-known and well proven solution for product separation.



From the infeed section, the potatoes are rotated through the camera unit on Newtec Roller Vibrators (International Patent) for complete surface coverage.

The extended Camera Unit is equipped with 3 in-house-developed high speed cameras which photograph each and every potato up to 45 times to **capture precise data** on size and surface quality.



The Celox XT is equipped with a user-friendly interface that enables **access to all functions** of the grader.

It also supports:

- Master/Slave configuration
- Remote User Interface for convenient accessibility
- PLC connectivity for line integration



Upon exiting the camera unit, the potatoes are smoothly and gently placed on the spinaflex unit for transportation to the specified outlet. Once reaching the outlet, the spinaflex is triggered by electromagnetic impulses and the potato is delivered.

It is in this section where potatoes are **sorted according to pre-set grading criteria**.



Each outlet gently **carries a specific class or classes** of the graded potatoes e.g. Outlet 1 for Rejects.

Available in different sizes ranging from 2 to 13 outlets, the Celox XT can be tailor-made to fit into any production line.

Fully modular to enable extending the machine to meet the needs of your business.



The Celox XT can be enabled for Web Services to make **production management** and **process monitoring** possible from anywhere through the Internet.

Newtec Web Services is a powerful software that delivers business information and productivity tools for Celox Graders through a secure Internet connection.