

Turning **eggs** into valuable business

SANOVO Ardentia

Increased capacity
and functionality

Ardentia

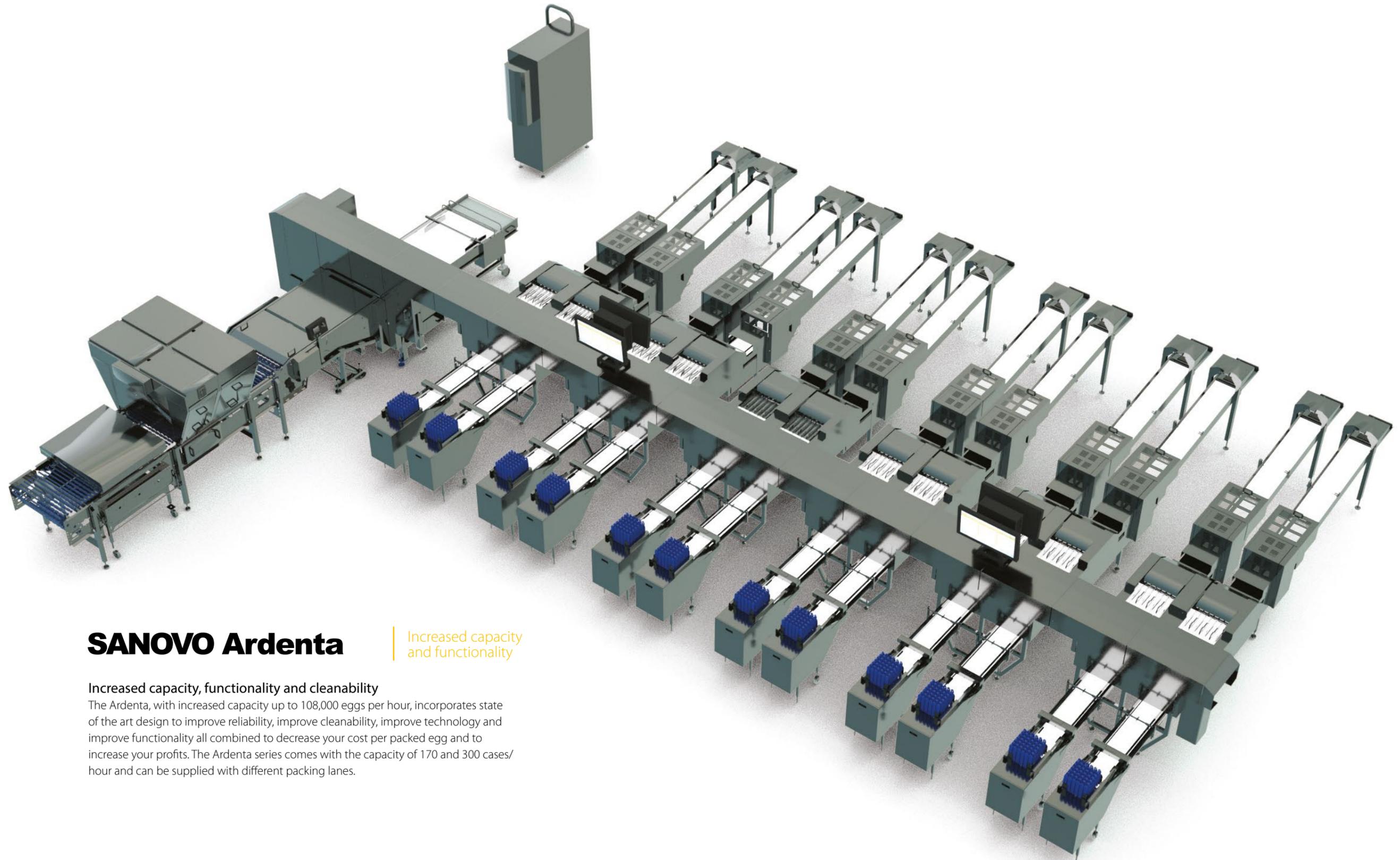
Egg producers - We **heard** you!

In order to meet the highest sanitary standards for your tough environment, we have designed the Ardentia Egg Grading and Packing Machine.

The SANOVO Ardentia Series of Grading and Packing Machines

- Highest sanitary standards with ease of cleaning
- Proven technology and reliability
- Minimal maintenance and downtime

SANOVO 
TECHNOLOGY GROUP



SANOVO Ardent

Increased capacity
and functionality

Increased capacity, functionality and cleanability

The Ardent, with increased capacity up to 108,000 eggs per hour, incorporates state of the art design to improve reliability, improve cleanability, improve technology and improve functionality all combined to decrease your cost per packed egg and to increase your profits. The Ardent series comes with the capacity of 170 and 300 cases/hour and can be supplied with different packing lanes.

The product images shown may represent a range of our products, please note that the product attributes vary with each unique part number or configuration.

Weighing section

The very well proven digital weighing system will serve you for many years. It tests itself and recalibrates for each egg. The whole system is mounted for maximum stability and without any moving parts, thus minimum wear & tear and maintenance. The scales are simply washdown without hassle.



Crack detection

This advanced washdown crack detection of SANOVO has the sensitivity to determine 15 multiple crack level spread over 3 categories, giving the possibility to carefully fine tune your final product to maximum and constant output.

Candling booth with Irus Quality system

A candling booth can be used for quality control. The candling booth allows the operator to check the passing flow of eggs quickly and accurately. A semi-automatic candling system (IRUS) can be placed that can classify four categories of off-grade eggs.



Leak & dirt detection

Equipped with a complete program of all the possible detection systems. Proven technology, with a proven track record. Leak, dirt, and color detection can be operated to make sure you can provide the best quality eggs to your customers.

Roller entry conveyor

The roller entry conveyor moves eggs to the weighing and inserting section and is made to withstand the harshest cleaning chemicals used in the industry. A roller cleaning system can be integrated so that it cleans every roller while the grader is running. During operation, three brushes maintain a sweeping action across the rollers, creating friction that generates heat, reducing bacterial growth on the rollers.



Infeed

The SANOVO Ardenta can be configured for inline feeding of eggs from the layer house or offline from eggs in trays to be loaded by our loader. The materials comply with the food safe contact material standard. The whole infeed can be foamed and washed down including the weighing and crack systems.

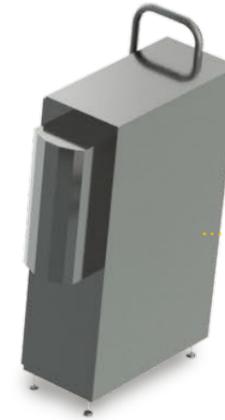


UVC Disinfection section

The UVC section reduces possible surface contamination. The section was designed to ensure operator safety and can be easily cleaned with water.

Blood detection

Placed at the beginning of the main track, it is very accessible and easy to clean. The unit is equipped for automatic compensation for the individual color of the egg.



Touch screen with Egg-it Touch

The user-friendly control system, enables you to control the complete grader.



Over-undergrade belt

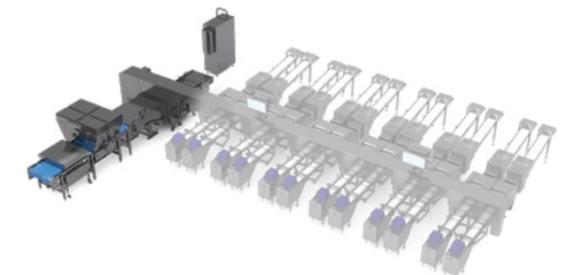
The Ardenta can send any egg weight or second quality egg out of the grader without having to insert them into the carrier chain. This creates an extra packing location without adding machine's footprint.



Inserter

The simplest and most reliable method for transferring eggs into a stationary chain conveyor. Easy to reach for maintenance and cleaning.

Part 1 - Infeed to transfer



Packing lanes

Each lane has a separate drive chain and its own electrical cabinet, further minimizing the risk of lost production. A variety of conveyor lengths is available.



Monitors

Large overhead monitors give instant information for operators to react upon, therefore maximizing operational production



Denesters

Each denester is detachable and easily changeable. Extra denesters can be added as backup units that can be operational in minutes to reduce change-over time and reduce labor cost due to packing lane stops.



Egg transporting and releasing

Two rows of egg carrier chains release each egg individually by weight and category into a detachable and washable soft brush receiver, delivering the gentlest transfer in the industry. The brush receiver eliminates a series of critical high-speed transfers, reducing the risk of small hairline cracks that can open after transport and in-store handling. Only two inkjet printing heads are required to mark 300 cases per hour.



Closers

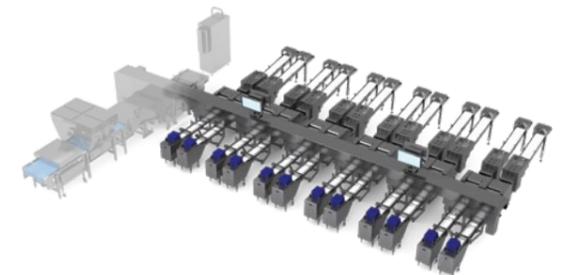
The closer handles 10-, 12-, and 18- egg packs, closing the most commonly used types automatically. Add a label in the lid, apply a printed label on top of the lid or add inkjet printing or stamping on the side of the pack, flexibility is built in.



Printers

The Ardenta can accommodate and interface printers from many manufacturers so that your product is coded according to local requirements. SANOVO can provide printers as a turn-key solution.

Part 2 - Packing lanes and maintrack



Easy cleaning and low maintenance



State of Art Technology

The SANOVO Ardenta can detect leak, dirt, blood eggs and hair cracked eggs with ever increasing accuracy on every detection unit. As Operator, you can define your own levels of off-grades by which you can manage the required quality. The additional functionality of color grading enables your grader to sort based on the color or shade of the incoming eggs.



Faster and Easier Cleaning

Ardenta features a long list of design optimizations that significantly reduce cleaning time. Traditionally, cleaning of the infeed section was a manual process using wet cloths, scrapers and compressed air. Today, most of the manual work has been eliminated or dramatically reduced – depending on the grader family. The crack detection and the weight scales can simply be washed, no disassembly required, reducing the risk of wrong re-assembly, of production disturbances and most importantly, reducing cleaning time.



Food Safety

With the ever-increasing global demand for improved food safety, SANOVO assists in helping your grader site to carry this responsibility. SANOVO graders are built based on regulations of food safe contact materials. The Ardenta can supply all track and trace related data, to ensure a 100% safe product.



Flexible Configuration/Footprint

The modular and flexible design gives you the possibility to set up and configure the packing lanes in ways to match the desired logistic flow. Straight forward or reversed configuration are possible. The design reduces the overall machine footprint and maximizes the packer's flexibility and output. The standard extra exits on the machine (over- & undergrade) or whole egg removal gates keeps your packing lanes handle your grade A product.



Soft Spot for Eggs

The most simple and reliable way to transfer into the still-standing chain conveyor. Our design eliminates compound cantilevered motions and fragile inserting arms with critical timing. The transfer is very easy to reach and clean. Two rows of egg carrier chains release each egg individually by weight and category into a detachable and washable soft brush receiver, delivering the gentlest transfer in the industry.



Easy to Maintain and Service

The graders are designed with many standard parts that are often locally available at our distributors or partners: reducing your operational costs and potential downtime. Need a hand changing a setting or making an adjustment? Our global service network is always available by phone, Skype or email.

With remote diagnostics, our customer care team can assist in addressing points of attentions. This ensures fast and accurate resolutions for maximum production time.



Easy to Operate

The graders are equipped with the EGG-it Touch program, which allows the operator to monitor the entire operation and make alterations when needed. The program continuously returns statistics on efficiency and performance and it includes a diagnostic feature in case of a malfunction. The EGG-it Touch program is a valuable source of information for everybody at the facility – from owner to operator to service engineer. The graders can also be monitored and diagnosed remotely by our customer care team.



We Have What You Want!

You told us you needed cost-saving packing technology with increased capacity and, if possible, even more reliable and easier to control. You said it needed to be far easier and quicker to clean by making use of water and detergents instead of scrapers and compressed air. Reducing grading hours due to higher capacity per hour, increasing efficiency due to sophisticated easy to user interface.

Functionality tailored to fit your need



Color Grading

In combination with the dirt detector, color grading can be used to handle brown and white eggs separately. Brown eggs even can be divided into different shades. This allows you to create a product with more homogeneous colored eggs to fulfill customer demand even better. Eggs with undesired color can be isolated.



Graded Output Quality

The SANOVO Ardenta is by default equipped with functionality to maximize your output. Through smart technology, the operator has full control on the graded output quality. The grading process can fine-tuned to deliver exactly the quality that is demanded by your customers.



Supplier Reporting

Supplier batch reporting guarantees the best products for your customer, you will be able to have the information regarding what was supplied to you. Our supplier batch reporting reveals for each batch of eggs the weight classes, amount of dirt, leak, blood and cracked eggs. This information can be presented as a PDF document or exported to your own quality assurance system.



Unique Zone Grading

The Ardenta can grade the eggs of an infeed zone, completely independent from the others. This means that different weight classes can be created per zone and eggs from each zone can be routed to a specific product or lane. This allows a maximum efficiency and customisation of your grading facility.



Fully Interfaced with Printer

The Ardenta can interface with all popular egg printer brands in order to offer a complete egg tracing solution. Egg prints can be selected individually for each product and a number of data sources can be used to print on the egg.



EGGit switch

In order to trace every egg of a supplier batch to its final product, its origin must be known to the grader. With EGGitSwitch this can be done, without losing infeed efficiency. By placing a special 'egg' on the first tray of a new batch, the grader knows exactly to which batch every individual egg belongs while being able to continue with your grading operation seamlessly. EGGitSwitch is built on RFID technology.



Infeed Zone Grading

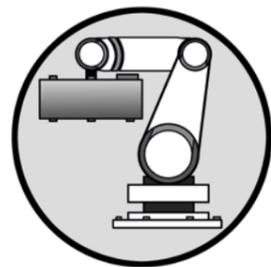
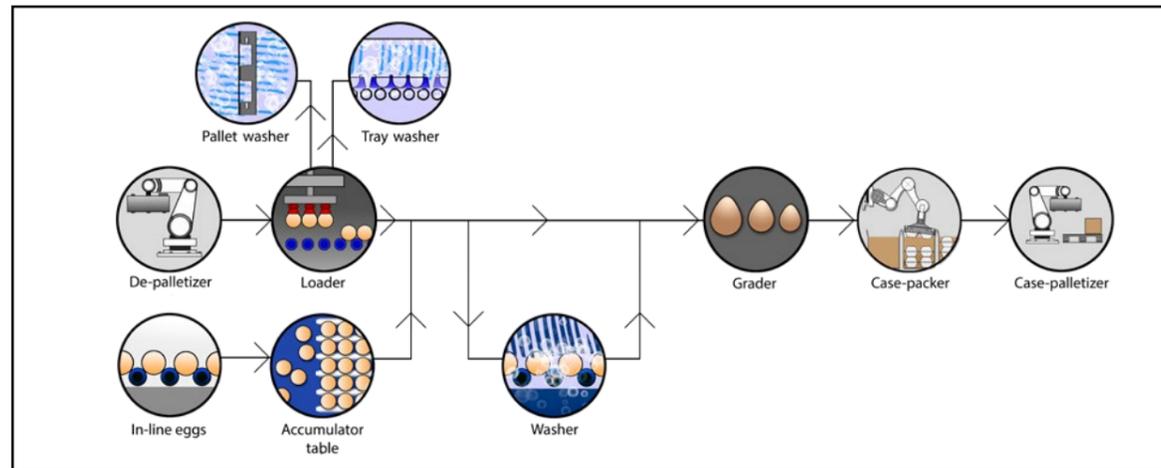
When combining an inline and offline system with eggs coming in from the chicken houses directly and through a loader, the Ardenta can be configured to grade eggs from these sources separately. This is done by creating zones on the infeed table and by configuring the grader to route eggs from each zone differently. Of course a separate batch report is created for each batch on different zones.



Efficiency Reporting

In order to maximize your results, the grader must run at its maximum efficiency. In a daily operation there are numerous factors that influence efficiency, which need to be kept under tight control. With the Ardenta's efficiency reports it is possible to know the exact efficiency of your grader and to pinpoint steps in the grading process that can be optimized.

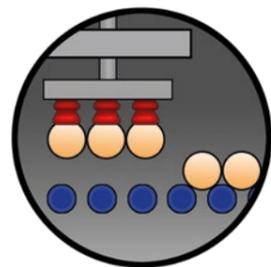
Functions in the grading process



De-Palletizer

The SANOVO De-Palletizer gently handles plastic trays, interlayer and pallets.

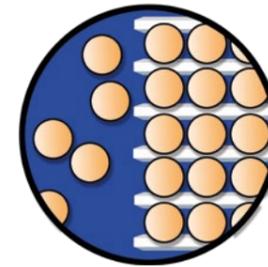
An automated de-palletizing system removes the manual loading of the Optiloader and reduces any heavy lifting for the operators. SANOVO offers De-Palletizing solutions covering the capacities of the graders.



Loading

The SANOVO OptiLoader concept has been optimized for handling the 'daily' change of egg quality, tray size and shape. The SANOVO OptiLoader can handle very small to large eggs, without any loading complications. The loader handles any type of tray available on the market.

Using the latest technology, the SANOVO OptiLoaders use a servo-controlled gear motor, making the mechanical system reliable and easy to maintain as the electronic system is self-adjusting. The rotary design of the loader has made it possible to reduce process speed by 50% compared to other machinery available on the market.

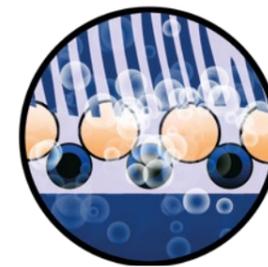


Accumulator

In inline operations, with the eggs arriving to the grader randomly positioned on a conveyor, the eggs need to be gently guided into the number of lines on the grader. It is of great importance that a minimum number of eggs are damaged during this process.

The SANOVO OptiAccumulator ensures:

- Highest filling rate on the grading line
- Optimal egg distribution
- Easiest cleaning, manual or CIP



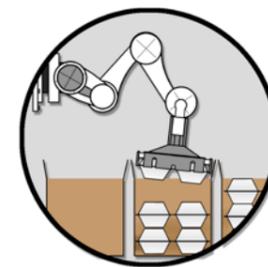
Egg Washing

The challenge of egg washing is to clean the eggs efficiently without damaging the eggs. The SANOVO SW washers fulfill this demand with a Double-Action Washing System with a combination of brushes and spray nozzles.

The modular washers are available in different lengths and wash times. They offer a variable number of brushes and spray modules for maximum washing performance.

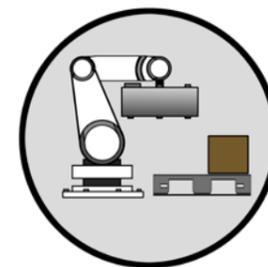
The SANOVO SW Washers offers

- Removable brush & spray modules
- Slanted brushes for maximum egg-to-brush contact and gentle washing
- Adjustable brush system for different egg sizes
- Different brush types (soft or hard)



Casepacker

The SANOVO Casepacker gently pack eggs into boxes with no manual operation needed. It handles two packing lines at the same time with very high precision.

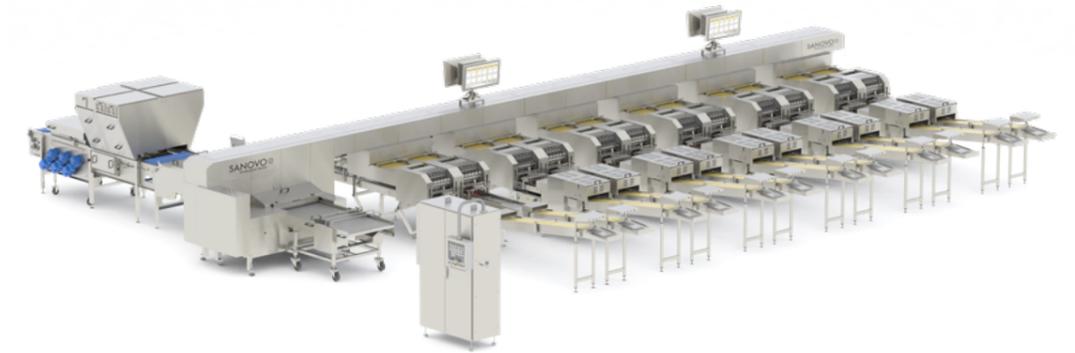


Case Palletizer

The SANOVO Case Palletizer handles a wide range of cases/crates gently and efficiently. It is capable of packing four different types of cases/crates on four different pallets.

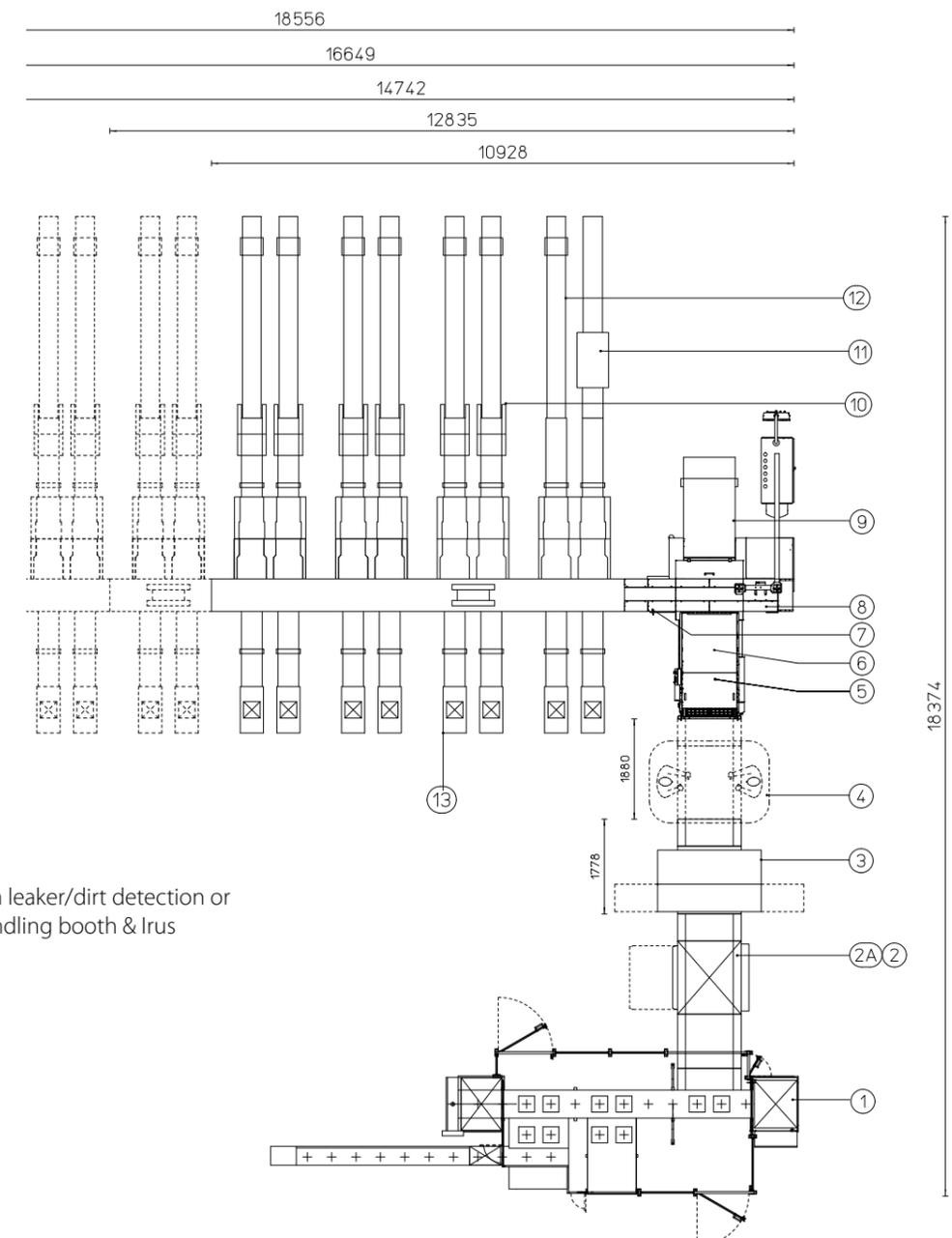
Grader families optimized to your needs

The graders are all the result of many years of continuous development and have proven their efficiency at many production sites. Each family has been optimized to meet the requirements in their particular working environment.



	Alpha	Ardenta	OptiGrader	GraderPro
Capacity	25,200 - 45,000 eggs/hour (70-125 cases/hour)	61,200 - 108,000 eggs/hour (170 - 300 cases/hour)	144,000-254,600 eggs/hour (400-707 cases/hour)	144,000-288,000 eggs/hour (400-800 cases/hour)
Electronic weighing	✓	✓	✓	✓
Simple hygienic design	✓	✓	✓	✓
CIP	-	-	Semi-Automatic	Full-Automatic
Cleaning / Washing				
Infeed				
Removal gates	Wash-down	Wash-down	CIP (option)	CIP
Detection systems				
Scale	Wash-down	Wash-down	CIP (option)	CIP
Crack	Wash-down	Wash-down	CIP (option)	CIP
Insorter	-	-	Wash-down	CIP
Main track	-	-	-	CIP
Packers	-	-	Wash-down (option)	Wash-down
Packinglane	-	-	Wash-down (option)	Wash-down
Detachable conveyor belt	✓	✓	-	-
Minimum usage of specialized parts	✓	✓	✓	✓
Detection systems				
Scale	✓	✓	✓	✓
Crack	✓	✓	✓	✓
Leak	✓	✓	✓	✓
Dirt	✓	✓	✓	✓
Blood	✓	✓	✓	✓
Color	✓	✓	✓	✓
Inkjet printing	Side	Side	Side	Top + Side

Technical drawing Ardenta



1. Multiloader
2. Roller cleaning system
- 2a. UVC disinfection section
3. Automated candling with leaker/dirt detection or
4. Semi automated with candling booth & Irus
5. Weighing section
6. Crack detection
7. Blood detection/printers
8. Grader frame
9. Off-grade belt
10. Closers
11. Tray stacker
12. Packing lanes
13. Denesters
14. Drop gate blood

A global player but close to you

Our objective is to contribute to the ongoing success of your business, and whether you are a small-, medium- or large-sized company, we turn your eggs into valuable business.

Providing complete solutions for the egg processing industry has been our main activity for more than 60 years, and it still is. However, we specialize in many other business areas such as enzymes, pharma, hatchery and spray drying, which give us the opportunity to interact and build relationships with a variety of prospering industries.

We believe in personal relations and know that our team of skilled professionals is the key to mutual success and trust. Gathered from all over the world, they provide know-how and deliver the right service and solutions in close cooperation with you as a customer.



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