

Egg Grading

GraderPro 75-220

One solution for all grading stations where reliability, hygiene and single egg traceability are needed.





65 Years of Egg Grading Experience in One Line

Our egg graders handle all popular packaging throughout the world. We offer a wide range of mechanical and electronic graders that are flexible to be configured to local needs of producers starting at 75 cases/hour.

Choosing an egg grader from SANOVO TECHNOLOGY GROUP, you get gentle handling of your eggs to each carton through the most advanced technology available, with superior labour efficiency, and lowest spare parts usage.

The SANOVO graders have the ability to track your eggs individually for adding value to your partners and consumers down the value chain. The design of the machine ensures that all the necessary parts are completely washable and FCM-approved (declaration of compliance with government food safety legislations).

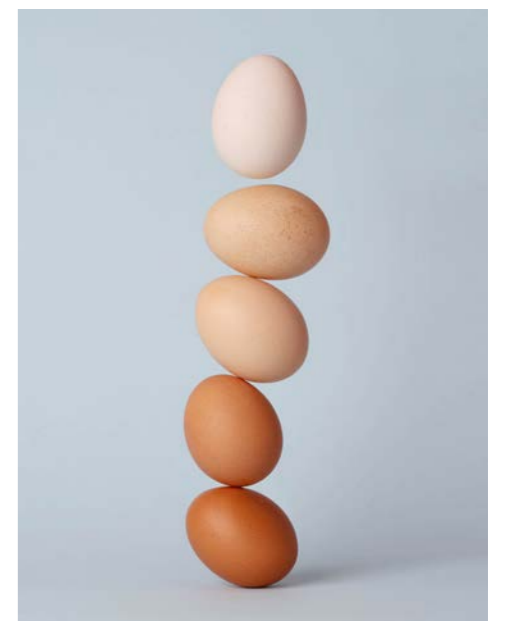
Smart and intelligent design for every grading business.

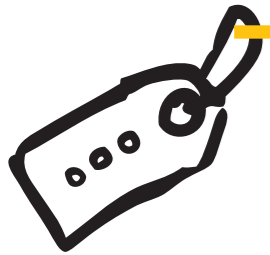
GRADERPRO	75	110	150	220
Maximum capacity	27,000 eggs/hour 75 cases/hour	39,600 eggs/hour 110 cases/hour	54,000 eggs/hour 150 cases/hour	79,200 eggs/hour 220 cases/hour
Lanes	4-8 and rear	6 - 12 and rear	8-16 and rear	10-20 and rear
Hygiene				
CIP	-	Optional	Optional	Optional
Wash-down	Standard	Standard	Standard	Standard
UVC infeed	-	Optional	Optional	Optional
UVC transported	Optional	Optional	Optional	Optional
Single egg traceability	Integrated	Integrated	Integrated	Integrated
Main track	Single track at reduced track speed	Single track at reduced track speed	Two tracks at reduced track speed	Two tracks at reduced track speed
Accumulator	Standard accumulator	Standard accumulator	OptiAccumulator	OptiAccumulator
Offline loader	AO/Flex Loader	Flex Loader/OptiLoader 6	OptiLoader 6	OptiLoader 6
Integrated egg printing	Optional	Optional	Optional	Optional
Integrated pack printing	Optional	Optional	Optional	Optional
Order based grading	Optional	Optional	Optional	Optional



The GraderPro is designed for easy use so you can focus on getting your eggs safely into the market.

Available in sizes from 75 to 220 cases/hour, the machines are designed to meet all your requirements for efficient and safe grading.





Every Egg Has a Tag

Today, food safety is an increasing demand and cannot be ignored. Traceability of the eggs is of high importance for food safety.

The GraderPro offers **100% traceability** through the entire machine, which means that **every single egg is individually controlled** and can be traced back if necessary.

From the first detection system in the grader, the software tracks every single egg until packed in the carton, case or pallet. Egg tracing enables you to track your eggs back to where they come from.



Designed for Gentle Egg Grading

In the food and egg processing industry, we have gained the reputation of producing solutions of the highest quality and performance.

We are truly excited to offer you this great new machine and feel confident that it will serve you as a trusted partner in your egg grading business.



Watch
movie



EXCEPTIONAL GENTLE EGG HANDLING

The SANOVO GraderPro is developed to give your eggs first-class treatment. One of the innovations developed for the GraderPro is a new system that ensures the gentlest egg handling ever seen.

Most damaged eggs are cracked, due to side impact on the eggs. Side impact occurs when you transfer eggs through a machine in one direction, and while the egg is in movement, there are changes to the direction. To avoid this side impact, we developed a system that only transfers the eggs in one direction at a time. We deliver eggs only one way – downwards. The downward delivery eliminates side impact and ensures exceptional gentle egg handling.



LOW TRACK SPEED

Along with the no-side-impact technology we have rethought and renewed the transportation in the mainframe of the grader, resulting in a track speed reduction of up to 25% compared to other manufactures.

When the track speed is low, we can guarantee an even furthermore gentle egg handling and, through this, a higher output of packed eggs.



EASY MAINTENANCE

We made an effort into making a basic design that requires minimal maintenance. Due to less moving or complex parts, the required maintenance can be kept at a low level.

The minimal service required on the machine saves you downtime and money.

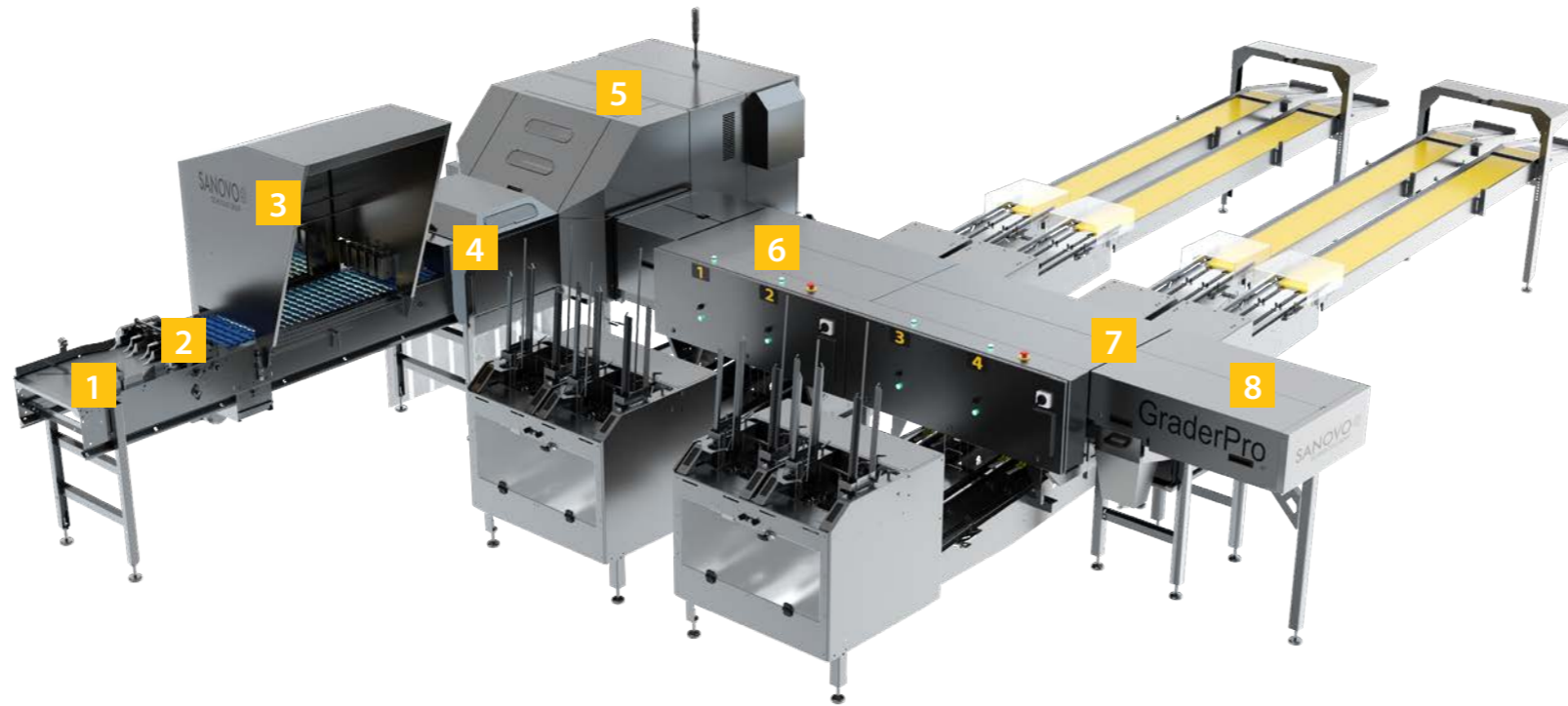


AUTOMATIC CLEANING

Cleanability of the machine is very important when investing in a new egg grader. The SANOVO GraderPro has been designed for optimal cleaning with minimal effort, and can be equipped with CIP (cleaning in place).

We made a hygienic design by making sure that all parts of the machine can be cleaned, leaving no blind spots. No need to disassembling the machine for cleaning. In addition to time and manpower savings, CIP reduces the amount of water needed for cleaning, minimizing your production costs.

GraderPro 75




27,000 eggs/hour
(75 cases/hour)



 Open layout

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- 1 Infeed**
Machine can be configured for offline / Inline grading. Completely washable.
- 2 Accumulator**
Completely washable. Min. 4 lanes
Max. 8 lanes Programmable end release.
- 3 Candling booth**
Equipped with a standard manual candling booth.

- 4 Weighing**
Self-calibrating scales for optimal weighing of every egg.
- 5 Orientator**
Sliding inserter 1x6 eggs. No wear and tear. Completely washable.

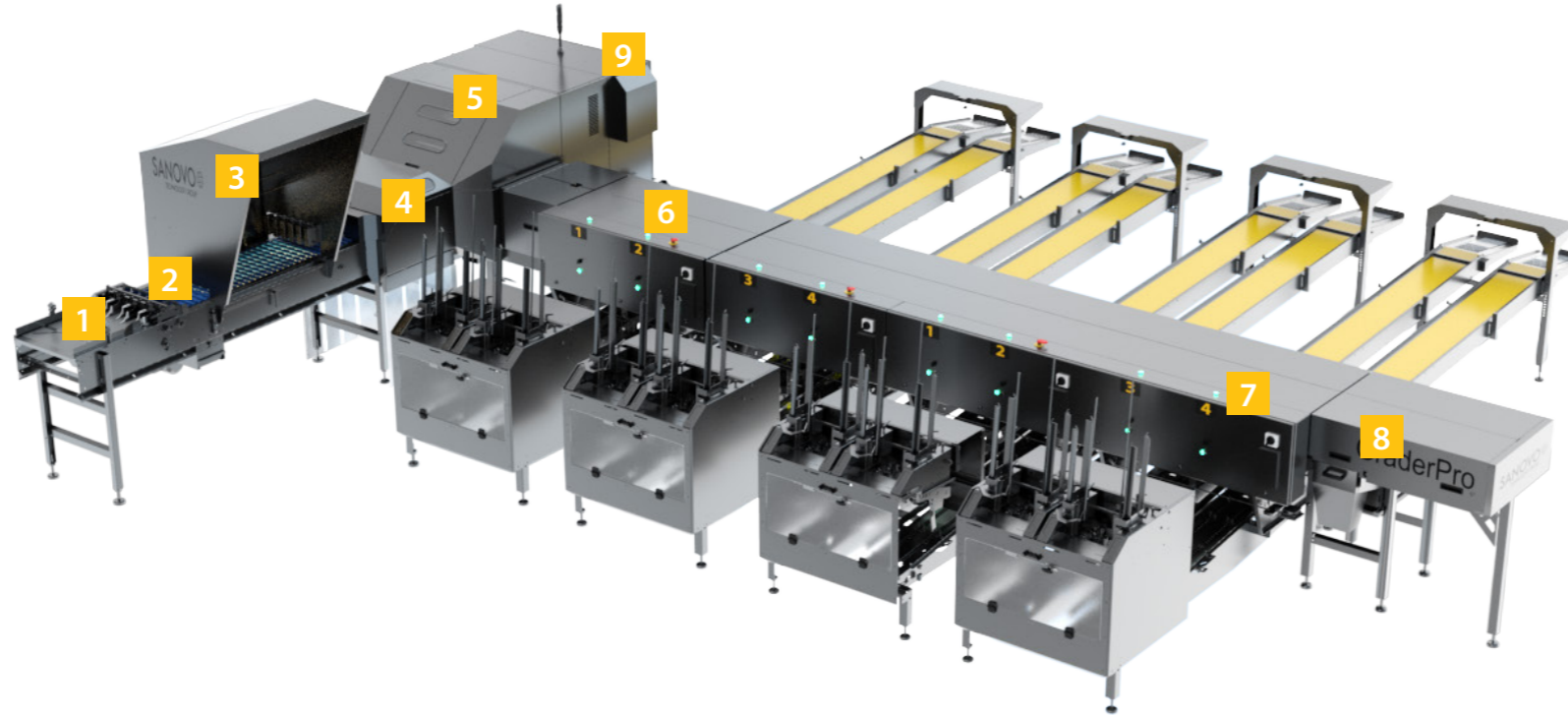
- 7 Packers/Cascade**
The cascades with one directional transfer and a high buffer capacity are responsible for gentle egg transfer to final setter position and support the design goal of "every egg has a tag".
- 8 End release (non-stop)**
The end release of the machine frame makes it possible to run the GraderPro at full speed even if the packing lanes are full. The end release is also suitable to drop two more weight categories.

TECHNICAL DATA

Max capacity	75 cases/hour (27,000 eggs/hour)
Rows infeed	6
Amount of tracks	1
Minimum no. of lanes	4
Maximum no. of lanes	8
Egg inspection	Manual
End release + 2 manual grades	Standard
Inline	Optional
Offline	Optional
Combi	-
Information display	-
Automatic lubrication	Optional
Integrated egg printing	Optional
Integrated pack printing	Optional



GraderPro 110



39,600 eggs/hour
(110 cases/hour)



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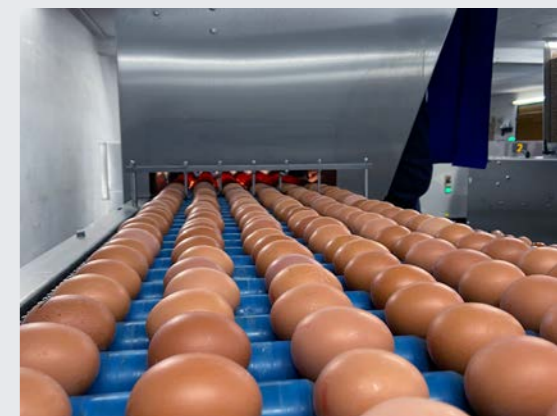
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- 1 Infeed**
Advanced infeed machine can be configured for offline / inline grading. In case of offline the machine, will be equipped with a FlexLoader. Completely washable.
- 2 Accumulator**
Alpha/Opti Accumulator.
- 3 Candling/Automatic detection**
Equipped with candling booth or full leaker, dirt, crack, blood and color detection system.

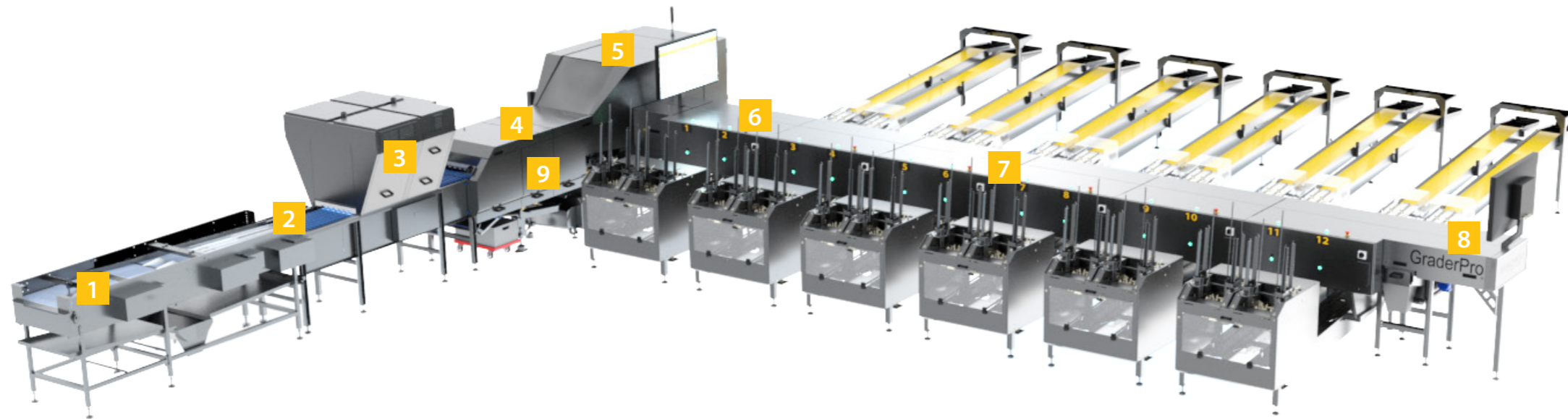
- 4 Crack & Weighing**
Self-calibrating scales for optimal weighing of every egg. Completely washable.
- 5 Orientator**
Sliding inserter 1x6 eggs. No crack detection, no side exit, no optional belt.
- 6 Maintrack**
Single track machine.
- 7 Packers/Cascade**
The cascades with one directional transfer and a high buffer capacity are responsible for gentle egg transfer to final setter position and support the design goal of "every egg has a tag".

- 8 End release (non-stop)**
The end release of the machine frame makes it possible to run the GraderPro at full speed even if the packing lanes are full. The end release is also suitable to drop two more weight categories.
- 9 CIP**
Cleaning In Place, covers the infeed table, outlets, weighing scales, crack modules, orientator, and the main track.

TECHNICAL DATA	
Max capacity	110 cases/hour (39,600 eggs/hour)
Rows infeed	6
Amount of tracks	1
Minimum no. of lanes	6
Maximum no. of lanes	12
Egg inspection	Manual, semi automatic (IRUS) or automatic
End release + 2 manual grades	Standard
Inline	Optional
Offline	Optional
Combi	Optional
Information display	-
Automatic lubrication	Optional
Integrated egg printing	Optional
Integrated pack printing	Optional



GraderPro 150



54,000 eggs/hour
(150 cases/hour)



i Open layout

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- 1 Infeed**
Offline / Inline supply of eggs.
Multi or Opti Loader, Leaker, dirt, crack and blood detection. Washable.
- 2 Accumulator**
Basic and OptiAccumulator.
- 3 Candling/Automatic detection**
Equipped with candling booth or full leaker, dirt, crack, blood and color detection system
- 4 Crack & Weighing**
Self-calibrating scales for optimal weighing of every egg.

- 5 Orientator**
Sliding inserter 2x6 eggs. No wear and tear. Completely washable. Side exit.
- 6 Maintrack**
Double track machine.
- 7 Packers/Cascade**
The cascades with one directional transfer and a high buffer capacity are responsible for gentle egg transfer to final setter position and support the design goal of "every egg has a tag".

- 8 End release (non-stop)**
The end release of the machine frame makes it possible to run the GraderPro at full speed, even if the packing lanes are full. The end release can be connected to a re-run conveyor or to a breaking system.
- 9 CIP**
Cleaning In Place covers the infeed table, outlets, weighing scales, crack modules, orientator, and the main track.

TECHNICAL DATA	
Max capacity	150 cases/hour (54,000 eggs/hour)
Rows infeed	6
Amount of tracks	2
Minimum no. of lanes	8
Maximum no. of lanes	16
Egg inspection	Manual, semi automatic (IRUS) or automatic
End release	Standard
Inline	Optional
Offline	Optional
Combi	Optional
Information display	Standard
Automatic lubrication	Standard
Integrated egg printing	Optional
Integrated pack printing	Optional






GraderPro 220



79,200 eggs/hour
(220 cases/hour)



-  Open layout
-  Play video
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- 1 Infeed**
Offline / Inline supply of eggs.
Multi or Opti Loader, Leaker, dirt, crack and blood detection. Washable.
- 2 Accumulator**
Basic and OptiAccumulator.
- 3 Candling/Automatic detection**
Equipped with candling booth or full leaker, dirt, crack, blood and color detection system
- 4 Crack & Weighing**
Self-calibrating scales for optimal weighing of every egg.

- 5 Orientator**
Sliding inserter 2x6 eggs. No wear and tear. Completely washable. Side exit.
- 6 Maintrack**
Double track machine.
- 7 Packers/Cascade**
The cascades with one directional transfer and a high buffer capacity are responsible for gentle egg transfer to final setter position and support the design goal of "every egg has a tag".

- 8 End release (non-stop)**
The end release of the machine frame makes it possible to run the GraderPro at full speed even if the packing lanes are full. The end release can be connected to a re-run conveyor or to a breaking system.
- 9 CIP**
Cleaning In Place covers the infeed table, outlets, weighing scales, crack modules, orientator, and the main track.

TECHNICAL DATA	
Max capacity	220 cases/hour (79.200 eggs/hour)
Rows infeed	6
Amount of tracks	2
Minimum no. of lanes	10
Maximum no. of lanes	20
Egg inspection	Manual, semi automatic (IRUS) or automatic
End release	Standard
Inline	Optional
Offline	Optional
Combi	Optional
Information display	Standard
Automatic lubrication	Standard
Integrated egg printing	Optional
Integrated pack printing	Optional



SANOVO LinkPro

Get more insight from your egg production data



KEEP YOUR BUSINESS AT THE CUTTING EDGE

During production, the SANOVO equipment will provide valuable operational information that, thanks to LinkPro, will be accessible at any moment just with an internet connection. Therefore, you will be able to monitor KPI's and store process data for evaluation.

This information provides important management information, valuable production overviews and it is helpful to further optimize production; for example, the risk of downtime is reduced through the early detection of need for scheduled or ad-hoc service.

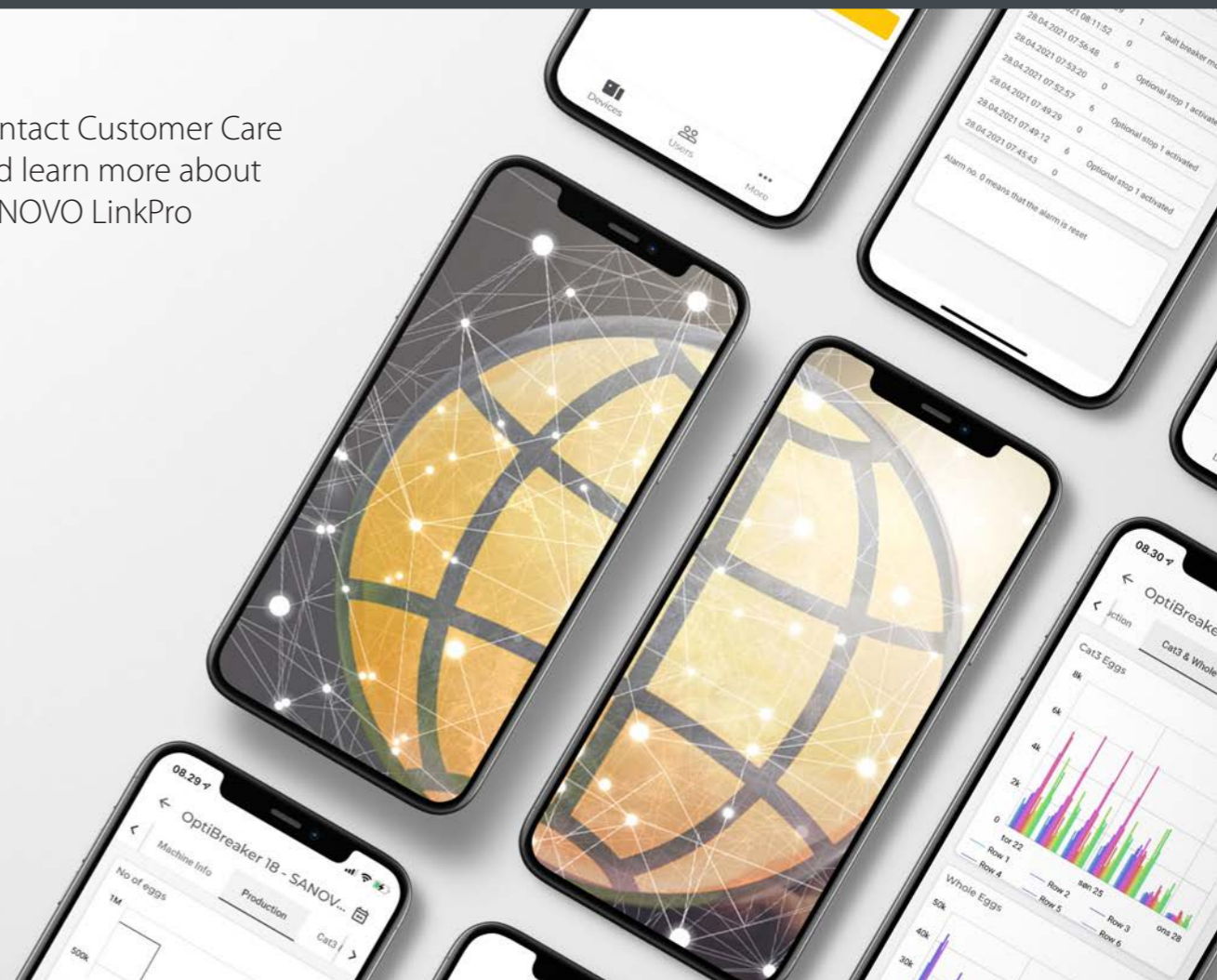
Software features for the GraderPro range

	75	110	150	220
SANOVO LinkPro	●	●	●	●
Separate zone sorting (infeed)		○	○	○
Batch reports	●	●	●	●
Injekt on eggs/provision	○	○	○	○
Upgrading per product		○	○	○
Separate weight limits	●	●	●	●
Dynamic weight limits		○	○	○
Product-based grading	●	●	●	●
Pack print/labelling		○	○	○
Color grading (optional to dirt detection)		○	○	○
Capacity control		○	○	○
Supply quality	○	○	○	○
Egg-IT Switch		○	○	○
Egg-IT Trace		○	○	○
3 rd party system integration (ERP)	○	○	○	○

● Standard
○ Optional



Contact Customer Care and learn more about SANOVO LinkPro



Easy to learn and use



Enables real-time decision making



Minimal IT support required



Data protection*

*We protect your data in the Cloud against potential vulnerabilities and ensure confidentiality, integrity, and availability of your data. Data is treated according to ISO-27001 (Information security management).

SANOVO Pro Vision AI

Detect cracks in your eggs without touching them!

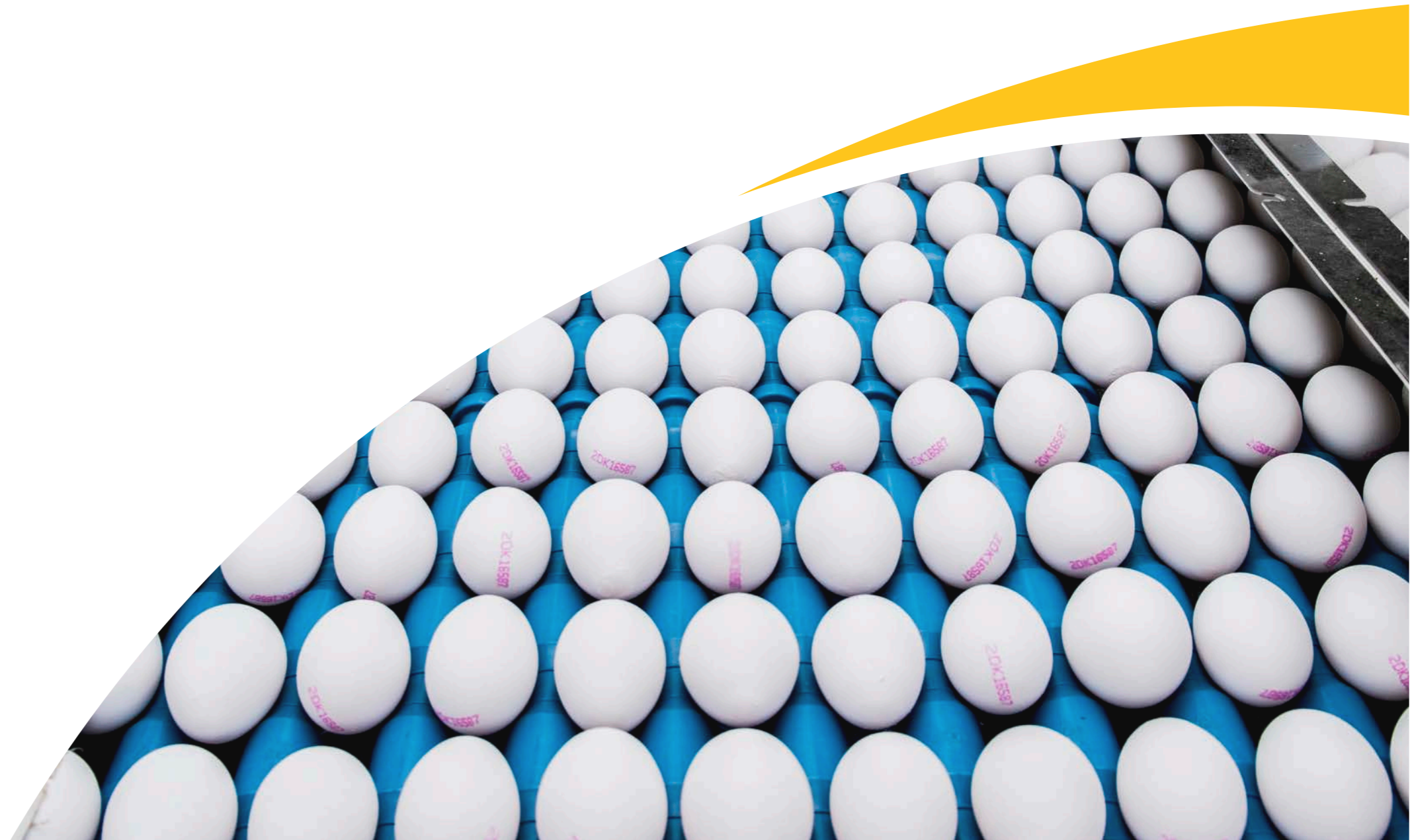
The SANOVO Pro Vision AI is based on technologies of Artificial Intelligence (AI) and ensures crack detection of your eggs without touching them. The system is equipped with extras and always gets smarter through machine learning.

The technology eliminates cross-contamination issues and further mechanical stress to the eggs. The module can be installed on a grader for vision-based crack detection if the eggs has been 100% washed.



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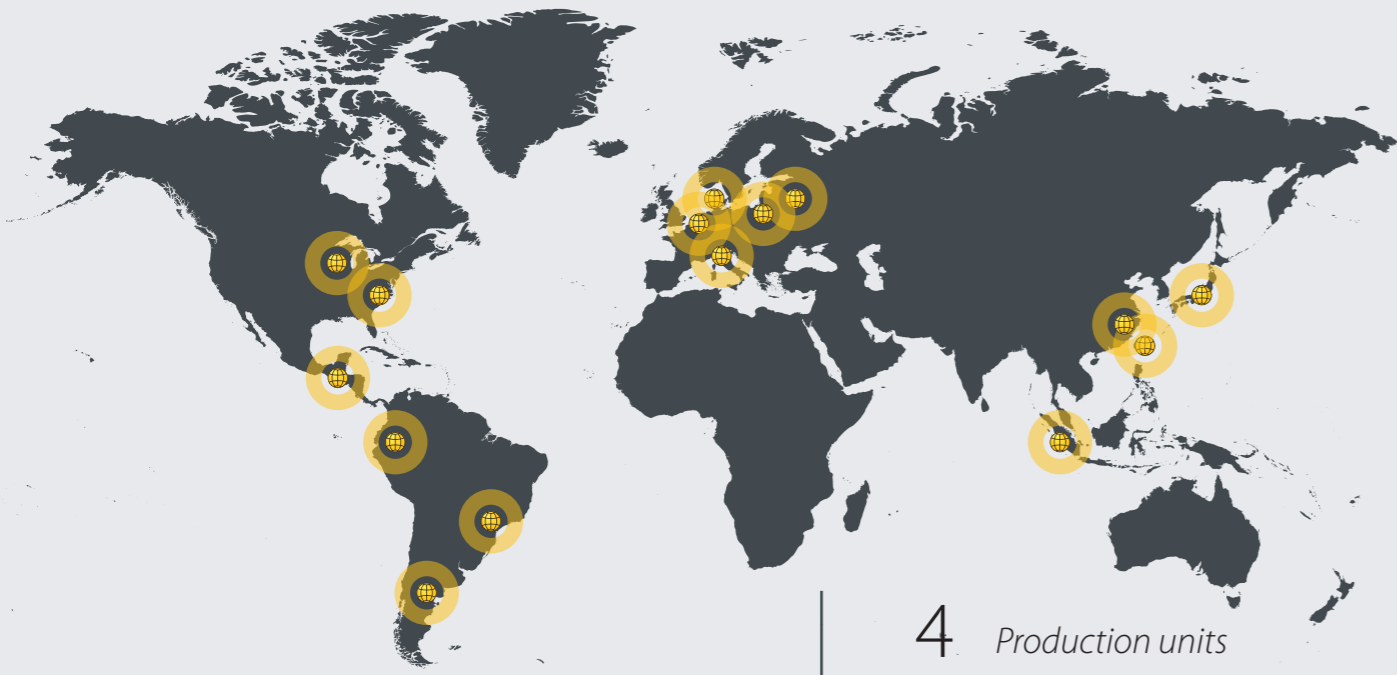
We are able to detect cracks on washed white and brown eggs. Without touching them we eliminate cross-contamination throughout the entire machine.



Worldwide service & support anywhere at anytime



Our team of specialists are here to help if you have any trouble with your equipment, need technical support, ordering spare parts, training of your local staff or if you need an upgrade or maintenance of your machine.



4 Production units
11 Sales & service offices
+50 Distributors

SANOVO CARE

Our contracts make it easier for you to choose a service that fits your needs

We believe that no matter how similar two facilities are, their maintenance needs are never the same.

This is why we specialize in customized SANOVOCare Agreements, which are designed specifically to maximize the return of your investment while minimizing your risks and break downs.

TRAINING PROGRAMS

It is our experience that a well-trained staff is more capable of performing essential and correct daily maintenance which minimizes downtime and ensures that the equipment operates smoothly.

We offer a balance between theory and practice in our state-of-the-art training facilities that are fully equipped with operating machines.

SPARE PARTS

We stock more than 10,000 parts, and our intelligent, global storage and logistics system makes it possible to operate with short delivery times.

Original spare parts from SANOVO have the advantage of fitting quickly and easily. They have a long service life and can be supplied many years after the machine was first purchased.



Learn more about customer care

TECHNICAL SUPPORT


In Technical Support we have invested in digital technologies to facilitate more effective communication and interaction - all to keep our equipment running and up-to-date every day all year. With Microsoft Hololense we are ready to assist you on the spot.

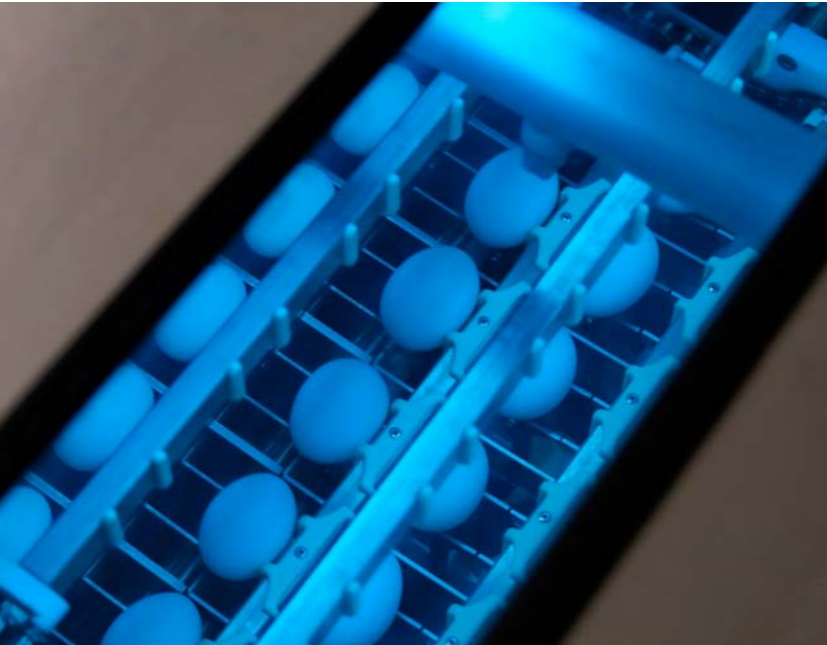
AFTERSALES

Keep your existing equipment up-to-date with our aftersales. Upgrading, remodeling of your existing equipment or integration of new installations - we are here to assist you.

The entire SANOVO Grading Family

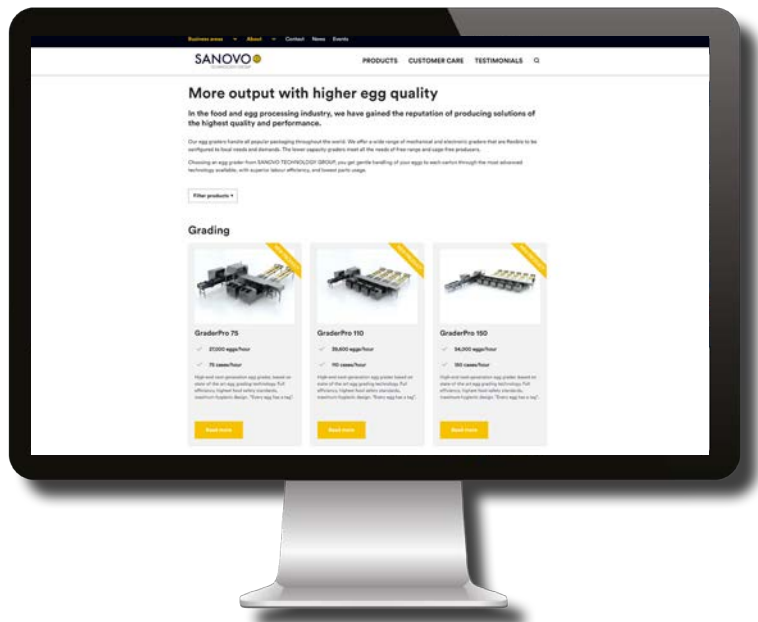
The graders are all the result of many years of continuous development and have proven their efficiency at many production sites. Each family has been optimized to meet the requirements in their particular working environment.

 Learn more about our grader range



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More output
with higher
egg quality

	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)	27,000-216,000 egg/hour 75-600 case/hour
Electronic weighing	✓	✓	✓	✓
Simple hygienic design	✓	✓	✓	✓
CIP (Optional)	-	-	Semi-Automatic	Full-Automatic
Cleaning / Washing				
Infeed				
Removal gates	Wash-down	Wash-down	CIP	CIP
Detection systems				
Scale	Wash-down	Wash-down	CIP	CIP
Crack	Wash-down	Wash-down	CIP	CIP
Inserter	-	-	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



**Go to www.sanovoegg.com
to learn more on each grader**

SANOVO 
TECHNOLOGY GROUP

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