MOBA

OMNIA

EGG GRADER SERIES XF2 / FT / PX

OUR FIRM BELIEF

In modern egg grading and packing stations, the top three cost factors are:
1) Packaging costs
2) Labor costs
3) Losses throughout the process

These three points account for 80 to 90% of the costs, while well-designed and maintained equipment should represent only a fraction of the total cost.

It is our firm belief that our customers benefit the most from their investment in equipment if the top three cost factors are significantly reduced. While installing an egg grading and packing machine is a huge investment, we are convinced that making the right decisions results in lower total cost of ownership. This decision-making process needs to evaluate equipment specifications, but aspects such as efficiency, yield of the total operation, uptime, supplier service capabilities, running costs and residual value should also be taken into account. Our aim is to be the partner that helps you make the right decision.

Industry leaders confirm:

"With Omnia we pack more eggs with less labor. Combined with Moba's Autopack program only a few people are needed to run a complete grading operation!"

Individual egg handling - minimal losses

TAILORED TO YOUR NEEDS

AVAILABLE IN ALL CAPACITIES
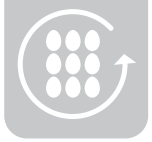from 45,000 up to 255,000 eggs/hour • from 125 up to 700 cases/hour

TOP EFFICIENCY

FOOD SAFETY

STRONG SERVICE NETWORK

OMNIA
The solid base for your operation

Premium line

Moba's premium line in egg grading and packing machines is the Omnia series. The highest food safety standards in the industry are combined with Moba's famous individual egg handling, resulting in the most efficient machine available. Every Omnia comes with an extensive software suite offering numerous tools to make maximum use of every incoming egg. A range of analytic tools help you to continuously optimize your production. The fact that all leading egg producers have embraced this technology, underlines the capabilities of the Omnia series. The Omnia is continuously in development and is now in its 5th generation. Coupled with Moba's worldwide service network, you can count on many years of worry-free operation.

OVERVIEW OF THE DIFFERENT OMNIA SERIES

	Available capacity range			Various models in cases/hour			
				infeed width			
Series	cases/hour	eggs/hour	Characteristics	6 eggs	12 eggs	18 eggs	24 eggs
Omnia XF2	125-700	45,000-255,000	Solid base for your egg grading needs	125/170	250/330	500	700
Omnia FT	125-700	45,000-255,000	Everything the XF2 offers, plus additional hygiene functions in the infeed section	125/170	250/330	500	700
Omnia PX	125-700	45,000-255,000	Everything the FT offers, plus additional control and hygiene functions throughout the machine	125/180	250/350	530	700

TOP EFFICIENCY
Sell more eggs

The more eggs that make it as a usable product, the better it is. Not only from a financial perspective, but also when taking the ecological footprint of your operation into account. Waste of valuable food should be minimized. That's why Moba takes much pride in maximizing the yield of the Omnia graders. The percentage of incoming eggs that make it to a consumer product is often referred to as "Table eggs %" or "Grade A %".

A long term investment with low depreciation costs

Many customers confirmed that when moving to an Omnia, a gain of 2% more Grade A was achieved, sometimes even more. Imagine what that means if just by using an Omnia grader, you have 2% more eggs to sell. This number results from many technological steps in the Omnia design such as its unsurpassed egg handling and smart software that helps you make use of as many of the incoming eggs as possible.

A grader running at high yield is a basis for efficiency. Minimizing losses of eggs and packing material will directly influence the total cost of ownership. Combine this with minimum labor and maximum uptime and you can see why a Moba Omnia grader is a solid long term investment. Even after many years of operation, a Moba grader still has a significant trade-in value.

IMPORTANT FACTORS CONTRIBUTING
TO TOP EFFICIENCY

1   OPTIMIZE YIELD BY AVOIDING EGG AND PACK DAMAGE AND SPOILAGE:

- Moba's unique wide roller concept, avoiding egg to egg contact within milliseconds after loading
- Outlet for leakers early in the process (available for FT/PX)
- Outlet for dirt-rewash-return eggs early in the process for inline egg-washing-operations (available for FT/PX)
- Most gentle individual egg handling using resilient packer parts from Moba's own precision molding
- Gentle egg loading using common speed loading technology, minimizing cracks
- Gentle accumulators with excellent flow control
- Unique double hygienic roller concept for non-egg-washing operations
- Multi-arm system with zero-speed-difference and impact-less transfer of eggs to tracks
- Proven denesters for optimal handling of over 2,000 types of consumer packs
- Servo driven closers gently closes over 2,000 pack types and minimizes downtime due to open packs

2   MAXIMIZE USE OF INCOMING EGGS:

- Accurate detection systems (shell, leaker, dirt and blood) present a quality level for every egg
- Shell strength detection adds valuable information to the usability of each individual egg
- Product-oriented programming grades eggs on size but also quality
- Based on quality information, smart software optimizes grading over different products and minimizes losses

3   MINIMIZING DOWN TIME:

- Product-oriented programming
  - Avoids re-programming numerous settings, ensuring quick product changes
  - Controls egg- and pack-printers with no extra work
  - Minimizes operator actions that can cause errors
  - Enables 100% accurate Tracking and Tracing without any manual administration
- Gapless supplier shifts enable you to run various batches of eggs without stopping
- Separate infeed system allows different batches to be run simultaneously without harming performance
- Automatic run-empty functions for quick egg-type changes
- Preparing next products while machine is still running the previous product
- Easy-to-adjust packer settings when changing from one product to the next
- Pin-conveyors allow for denester changes while grader is packing the last of the previous packs
- Orientator above the egg flow prevents downtime; no need to remove shells or liquids
- Detection systems (such as crack and weighing) are placed above the egg flow making it less sensitive to pollution
- Highly accurate weighing system boosts profit through sharper grade separation
- Extra packer parts allow COP (cleaning out of place) while the machine is in operation
- Onsite optimization inspections
- iMoba service surveillance, realtime dashboard and benchmarking

FOOD SAFETY
Open constructions for easy cleaning

All Moba Omnia graders are designed to minimize the presence of dirt spots potentially harmful to the eggs while operating. By having vital equipment above the egg flow, it will not come in contact with dirt or incidental drips of a leaking egg. At the same time, constructions are made in such a way that easy cleaning can be performed after operation. Depending on your needs, the various series offer a range of features for cleaning the equipment.

Food safety is a chain of many links. And the chain is as strong as the weakest link. Please note that technology can never prevent contamination. Only in combination with other good hygiene practices throughout the whole production process from chicken to consumer, as well as cleaning and maintaining the grader, a high level of food safety can be achieved. The Moba Omnia graders offer various technologies that help to minimize food safety hazards.

"Moba Ovoshield" is a special addition to industrial plastic parts made by Moba and is applied in all egg-touching packer parts of all Omnia machines. This additive of silver ions and titanium dioxide is approved by the FDA and EU and works by means of nano-technology.

It de-activates bacteria via 3 mechanisms:
1) The nano particles destabilize the cell membranes of any bacteria in contact with the plastic
2) It stops the process of cell division since the bacteria's DNA is damaged
3) It blocks the enzyme transport between the bacteria and the environment preventing transport of nutrients

Thus it adds an additional and another important step in keeping the food safety risk to an absolute minimum throughout the grader.

Bacteria cell

Stops the process of cell division

Destabilizes the cell membrane, wall of plasma

Interrupts the enzyme's transport of nutrients
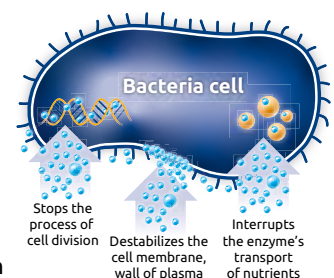
FOOD SAFETY CHARACTERISTICS

XF2 THE OMNIA XF2 OFFERS THE FOLLOWING FOOD SAFETY FEATURES:

Food safe during production
- Tracking & Tracing standard
- Orientator above the egg flow
- UV on rollers and eggs to reduce risk of cross-contamination
- Leaker + dirt detection above the egg flow
- Crack detection and shell strength detection above the egg flow
- Critical egg outlet under weighing system to drop leaking and extreme cracked eggs
- Weighing system above the egg flow
- Blood detection besides the eggs
- Egg-touching packer parts equipped with Moba Ovoshield technology

Easy cleaning after production
- Stainless steel construction
- Infeed: open frame construction can be foamed and high-pressure cleaned
- COP for orientator grippers
- COP for packer parts (receiver + buffer + dropsets)

FT THE OMNIA FT OFFERS THE SAME FEATURES AS THE XF2 SERIES, PLUS:

Food safe during production
- Outlet in the orientator (Multidrum) to release leaking eggs or heavy dirts as early in the process as possible
- Double hygienic roller function for non-egg-washing configurations
- Drip removal system for egg-washing configurations

Easy cleaning after production
- Cleaning-in-place system for cleaning the infeed rollers automatically after production

PX THE OMNIA PX OFFERS THE SAME FEATURES AS THE FT SERIES, PLUS:

Food safe during production
- UV disinfection on egg-touching parts in weighing system
- UV disinfection on transfer arms
- UV disinfection on egg-grippers in tracks
- Multi outlet for early removal of dirty eggs especially for dirt-rewash-return configurations

Easy cleaning after production
- CIP system for weighing grippers (using ultra soon technology)
- Egg printers are protected during cleaning
- Foamable and high-pressure-cleanable transfer
- CIP system for transport carriers in tracks
- Foamable and high-pressure-cleanable packer parts
- COP for packer parts can also be removed via easy removal system and cleaned externally
- Heavy duty parts washer for COP purposes; cleaning parts while machine is operating
- Foamable and high-pressure-cleanable packing lanes and end-conveyor

Controls
- Touch screens above packing lanes for quick product changes and fewer operator errors.

For a complete overview of the Omnia series go to page 24/25.

STRONG SERVICE NETWORK

A global organization with a personal touch

Our aim is to be close to you

Grading eggs is like top-level sport. Your "athlete" can only perform at its best if it is in top condition. Moba's service network is there to support you. And this support goes beyond fixing an incidental problem. Our focus is on preventive maintenance. By means of various training programs, remote diagnosis tools, iMoba monitoring and Service Care Packs we can assist you in keeping the equipment in good condition.

Our service staff of over 160 people is a reassuring and stable factor in the continuity of your production. With spare part warehouses in 9 locations around the globe, we maximize the availability of critical parts and minimize waiting times. With 14 offices and a service team speaking 27 different languages, we are a global organization with a personal touch. It is our aim to be close to you!

OUR SERVICE MAKES THE DIFFERENCE

1 **SERVICE TO SUPPORT YOU LOCALLY:**

- Helpdesk 24/7
- 9 warehouses worldwide ensure availability of spare parts
- Online webshop to order spare parts quicky and easily
- Service staff of more than 160 people
- Own offices in 14 locations
- We speak 27 different languages

2 **PREVENTIVE MAINTENANCE:**

- Service Care Packs with regular inspections and maintenance
- Operator and technical training in 2 Technical Training Centers
- Remote service assistance
- Onsite optimization inspections
- iMoba service surveillance, realtime dashboard and benchmarking

Many of our customers achieve extremely high levels of efficiency. But for those customers who are not reaching top-efficiencies yet, Moba offers various types of support. First of all our iMoba software can pinpoint where the greatest improvements can be made. Once the area with the highest potential is spotted, our Technical Training Center offers courses that will help you to action the improvements. Alongside that, our Customer Care Team can arrange on-site inspections. A combination of these measures will almost always result in a leap in efficiency. Situations where packing stations jump to 10% more uptime of the equipment and a few % more Grade A eggs is not unusual.

Moba Care Packs and Training maximize your uptime

OMNIA XF2/FT

"Open construction allows easy cleaning"

OMNIA PX

"All egg-touching parts are
disinfected during production"

A TOUR THROUGH THE MACHINE
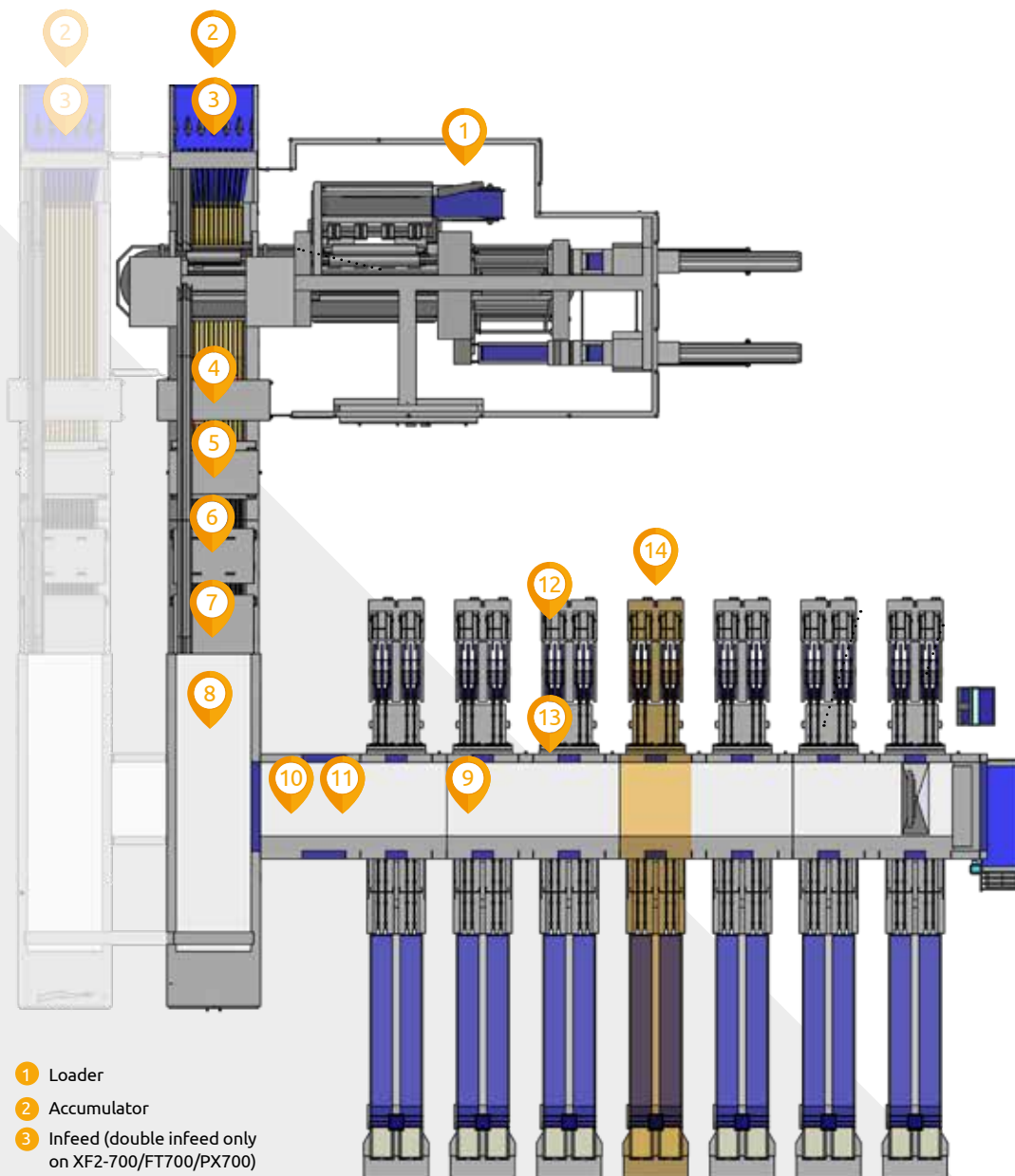
1. Loader
2. Accumulator
3. Infeed (double infeed only on XF2-700/FT700/PX700)
4. Egg inspector (optional)
5. Orientator
6. Shell inspector (crack and shell strength) (optional)
7. UV disinfection on rollers and eggs (optional)
8. Weighing system and transfer
9. Transport frame
10. Blood detection (optional)
11. Inkjet (optional)
12. Denester
13. Packer display
14. Packing lane

1. Loader

When eggs arrive at a packing station, they are packed on plastic or pulp trays in a 5x6 pattern. Depending on the type of loader, the trays are arranged in stacks of six trays. The stacks are carefully unloaded and transferred to the infeed conveyor rollers by vacuum cups. The common speed loading system eliminates hairline cracks in this process. Empty used trays are stacked for re-use, and plastic trays can be sent directly to an automatic tray washer. Each batch of eggs is accurately administrated. Adding a code, either by keyboard or barcode reader, will ensure quick retrieval of data, and additional automatic changes texts in prints on eggs, labels and consumer packs.

2. Accumulator

Eggs that come to the Omnia egg grader directly from the chicken houses, are transferred through the so-called 'accumulator'. This system combines a maximum filling ratio with the most gentle egg handling. Batches of eggs from different houses can be counted, administrated and even graded separately if required. Combination machines with both loaders and accumulators are also an option.

3. Infeed

The robust and open construction of the Omnia infeed system allow for high pressure cleaning. It is designed to keep dirt accumulation to an absolute minimum. The infeed starts with wide shaped rollers that help settle the eggs as quickly as possible. This minimalizes hairline cracks directly after accumulation or loading. The eggs and the downstream roller section can be disinfected by an optional UV system during production.

FT and PX: All rollers can be cleaned and disinfected post production by an automatic CIP system, optionally, double rollers can be mounted. This unique design ensures that each egg is resting on its own set of rollers.

4. Egg inspector (optional)

Vision system to inspect the shells of the eggs for irregularities. It can detect dirt spots as well as leakers. The egg inspector operates on brown, white and mixed eggs.
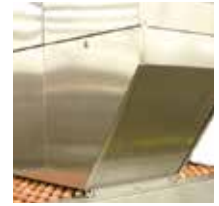
5. Orientator

This system handles the orientation of the eggs. By doing this early in the process, downstream functions such as crack detection and transfer can handle eggs with greater precision. The gripper sets are removable for easy cleaning (COP) or replacement.

FT and PX: furthermore, if an egg inspector is mounted before the multidrum, leakers and heavy dirts can be removed from the egg flow at a very early stage, preventing downstream contamination.

PX: in washer configurations a multi outlet can also remove dirty eggs at an early stage of the process for rewash purposes.
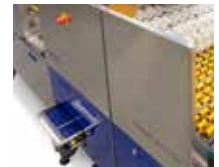
6. Shell inspector (crack and shell strength optional)

This magneto-acoustic system detects even the smallest hairline cracks. The smart software in Omnia allows you to easily produce different output qualities simultaneously. All Shell inspectors can also detect the shell strength of every individual egg. The system is placed above the egg flow so that the accuracy or uptime of the system cannot be compromised by pollution.
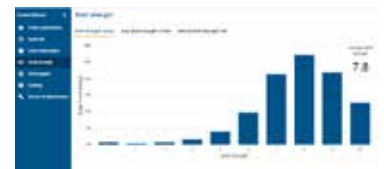
7. UV disinfection on rollers and eggs (optional)

UV-C light significantly reduces bacterial growth on both eggs and rollers. Although infections inside eggs are not cured, performing a surface disinfection minimizes the risk of the grader becoming a source of cross-contamination.

8. Weighing system and transfer

The weighing system ensures very accurate results combined with low maintenance and hardly any downtime. It is placed above the egg flow to avoid polluted weighing cells.

PX: during production, all parts that touch eggs are disinfected by UV-C and these parts can be automatically cleaned post-production by a CIP system.

Omnia has an integrated continuous transfer system which reduces the impact on the eggs to an absolute minimum. The transfer is easily accessible for cleaning and is mounted in the same stainless steel frame as the weighing unit.

PX: during production, all parts that touch eggs are disinfected by means of UV-C light, while the transfer can be foamed and high-pressure-cleaned post-production.

9. Transport frame

The main transport frame leads the eggs to the packing lanes. On their way, they can optionally pass blood detection and/or inkjet equipment. Once they reach the packing lane, the eggs are released from the carriers using highly reliable unlock magnets combined with perfect compensation of the forward speed.

PX: during production, all parts that touch eggs are disinfected by UV-C and these parts can be automatically cleaned post-production by a CIP system.

10. Blood detection (optional)

Spectrum analysis is used to analyze the contents of the egg for blood spots. Blood eggs can either be programmed to a specific packing lane or to the machine outlet .

11. Inkjet (optional)

Many different brands of inkjet systems can be used on the Omnia to print the eggs with information about grade, supplier code or house number and (best before) dates.

Several brands can also be automatically controlled by Omnia software. Ask for the compatible types.

12. Denester

Empty packs are destacked in the denester and placed in a pin conveyor one by one. This creates a temporary buffer that is useful to correct problems manually or give you time to switch to another type of pack without stopping the packing process. The movement of the packing lane is servo-controlled and positions the pack very accurately. Omnia packing lanes are capable of handling the widest variety of pack types in the world.

13. Packer display

Displays above the packing lanes shows the grade that is processed at a specific lane as well as specific status or error messages.

PX: The Omnia PX is equipped with ergonomic touchscreens above the packing lanes. By using simple icons, these screens display every imaginable detail about the product, such as laying dates and inkjet or labelling details, as well as all the settings required for the packer and denester. This enables quick interventions or product changes.

14. Packing lane

Moba Omnia machines use a buffer system to bring eggs together from multiple tracks and offer a temporary buffer location, whereas other machines use a single row merge system.
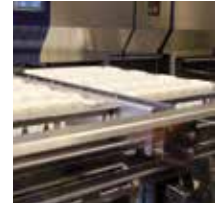
Moba's unique buffer system is unsurpassed when it comes to combining egg handling and high efficiency. The dropset takes the eggs from the buffer and places them into a pack. All packer parts can be removed for cleaning out place, either by hand or in a parts washer. During production, these parts are protected by 'Ovoshield' nano technology that prevents bacterial growth on the packer parts.

PX: all parts that touch eggs can be taken out either in cassette form or using a drawer-like mechanism. They can be cleaned out place for maximum food safety.

Layout example Omnia

Width in frame direction

Length in infeed direction

Pitch per block of
2 packing lanes = 1.476 mm
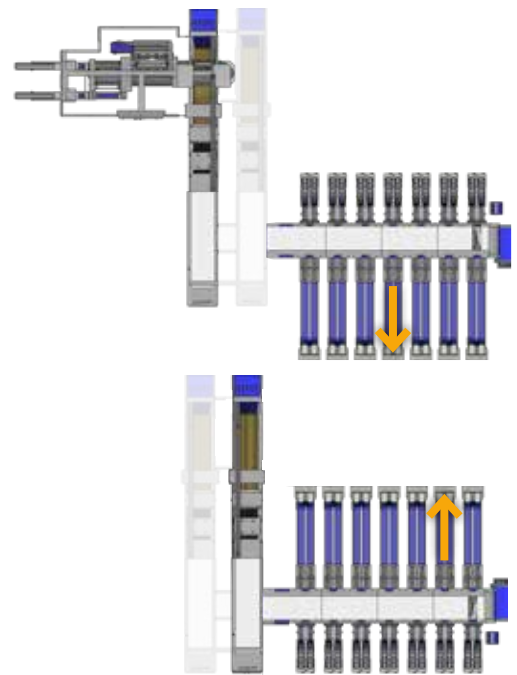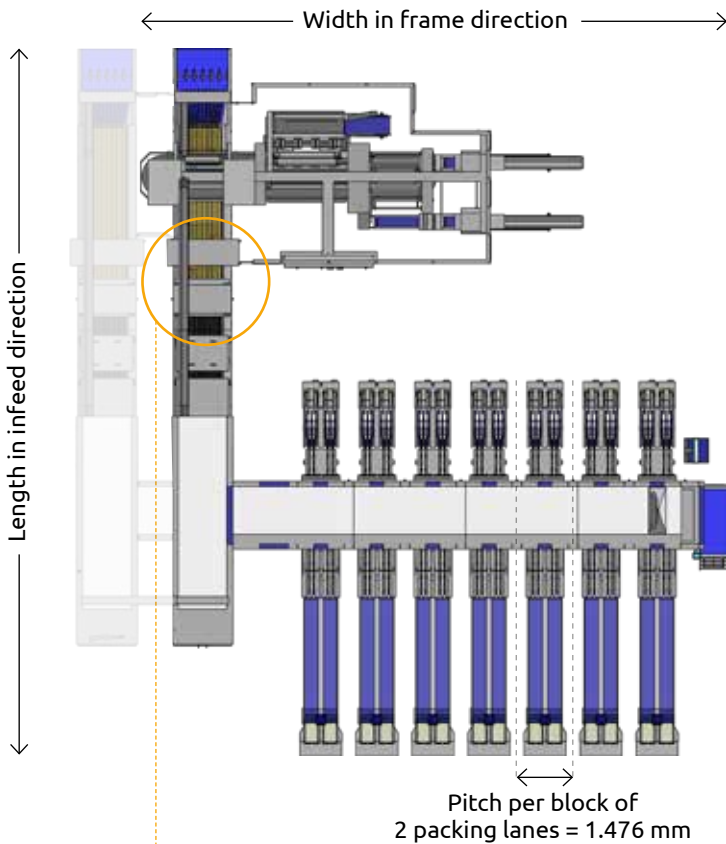
Thanks to Omnia's modular design, tailor made layouts such as Z-config (top) and Frontblock (bottom) are possible

Washing / drying integration

Omnia machines can be equipped with a washer and dryer system in case this is required. This system is commonly used in regions where eggs are being washed before they are packed. The washer and dryer (mostly 3rd party) will be integrated in the infeed system of the grader. We call this the *joint washing/drying configuration*: the washer, positioned after the orientator (multidrum), is directly followed by the dryer (shown in the picture below). This configuration is used for our XF2 machines.

Joint washing/drying

EGGS → ORIENTATOR | WASHER | DRYER | EGG INSPECTOR (option)

SINGLE WIDE ROLLERS | SINGLE STANDARD ROLLERS
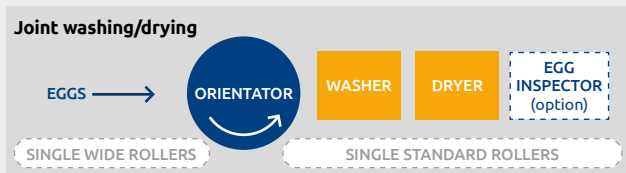
For FT and PX machines, where more hygiene features are available, we changed the configuration of the infeed system to better fit the hygiene standards and regulations. In this situation, the washer is positioned upstream of the orientator and the dryer downstream of the orientator. This *split washing/drying configuration*

creates two sections using the already existing split under the multidrum: one section where the eggs are washed, and another section where the eggs are dried. Leaking eggs can be removed from the egg flow to prevent cross contamination in an early stage of the process. In PX machines, an additional feature, the multi outlet, can be placed below the orientator to enable you to send eggs to a rewash circuit in case any dirt is still present on the egg.

Split washing/drying

EGGS → WASHER | EGG INSPECTOR (option) | ORIENTATOR | DRYER

SINGLE WIDE ROLLERS | SINGLE STANDARD ROLLERS

OUTLET
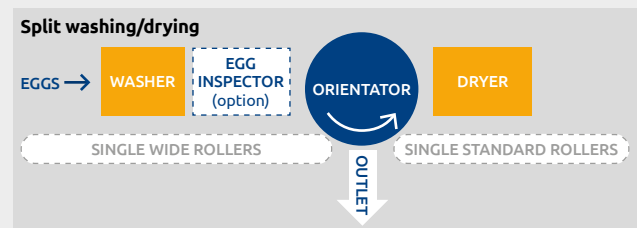
Several well-known washer and dryer systems can be integrated in the Omnia's infeed system. Our technical support team can help you to configure the most suitable solution for your washer and dryer integration. For more information, please contact your local Area Sales Manager.

Indication of dimensions of Omnia machines

Table shows indications of size for typical machine configurations. These are not minimum sizes but dimensions rounded to half meters based on practical, commonly used configurations for a certain capacity. Exact dimensions will vary depending on the number of packing lanes and options such as detection systems, candling booths, extensions, pre-accumulators, loaders etc. For a detailed plan for your particular situation, please contact your local Area Sales Manager.

Example: any Omnia with capacity in cases/hour	Typical number of packing lanes	Width in frame direction*	Length in infeed direction	
			Without egg washer	With egg washer **)
125	8	9.5m	12.5m	19m
170 - 180	10	11.5m	15.5m	19m
250	12	13.5m	17.5m	22.5m
330 - 350	14	15m	17.5m	22.5m
500 - 530	18	18.5m	17.5m	25.5m
700	24	25m***	17.5m ***)	25.5m

*) With a loader on the other side of the infeed, the dimensions may be wider.

**) Examples based on Kuhl dryer dimensions. Moba drying solutions with multiple manifolds adds ~3 to 4 meters to the infeed length.

***) With 2 loaders, this dimension will be ~23m.

For a complete overview of the Omnia series go to page 24/25.
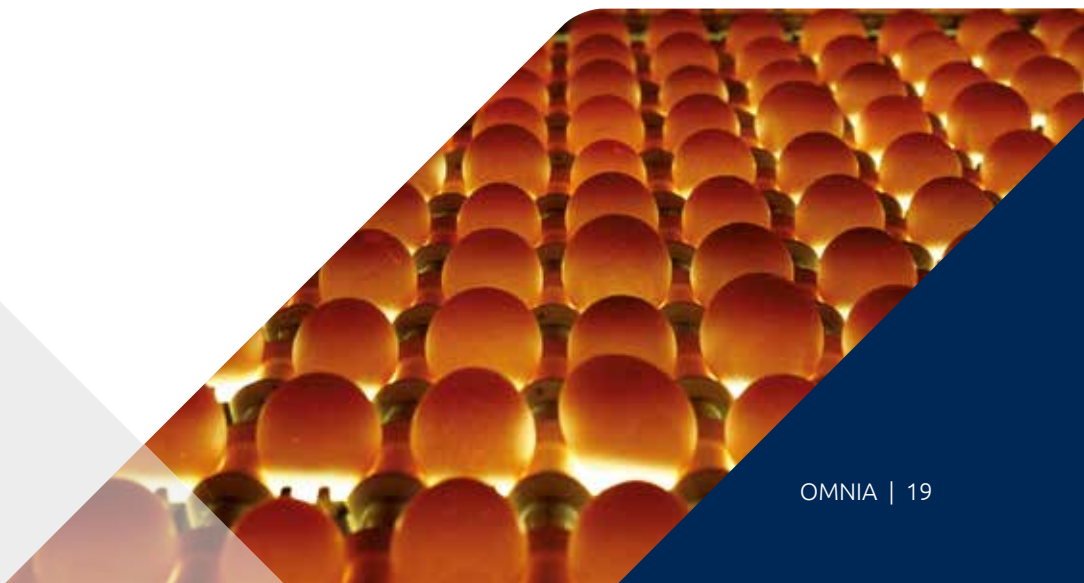
YOUR INTEGRATED BUSINESS SOLUTION

In modern egg packing operations, there are more people interacting with the egg grader than just the operators. This not only requires different interfaces, but different platforms as well, in order to be able to interact with the equipment.

The daily operation

For the daily operation, simple interfaces are in place to control the grader. Thanks to Moba's unique product-oriented programming, it's easy for the operators to facilitate repetitive jobs of programming products on the grader. The complete product definition—including pack type, quality printing etc.—is created once, and then only requires a few mouse clicks to use the same definitions over and over again without the risk of making any errors.

The robust interface is created in different levels, meaning that not only the operator, but also the technical staff have certain pages at their disposal to quickly diagnose the grader along with its attached peripherals. If needed, this can be supported remotely by our helpdesk as well.

Management information

Your grader can provide different kinds of information that is essential for other indirect processes. This includes information that may be important for the plant manager, the farm manager or even for the CEO when preparing for a board meeting. Traditionally, a large amount of information was available to be consulted at the equipment itself, but with the growth of egg packing stations, the demand for device- and location -independent information is growing. For these situations, iMoba is an attractive solution. Real-time data and annual reports can be accessed on any smartphone, tablet or computer with an Internet connection, meaning that this information is truly location-independent.

The logical balance between equipment and cloud-based information:
- Give the operator the best possible tools
- Avoid bothering managers with equipment screens but instead allow direct access to what is needed from anywhere at any time.

Future-proof system

The number of controls that are needed to operate the machine on a daily basis may be limited, but the opportunities to use big data for different purposes is almost infinite. That is why this combination of smart controls and cloud platform is future-proof. Since all Omnia's are equipped with the iMoba functionality, you can be sure that many smart features, that are in development, will be made available to you once they're released.

iMoba

iMoba is not so much a product as a journey that will introduce you to new features and possibilities. Our customers are our best "inventors", in the sense that we implement the functions they frequently request to keep improving our platform.

You can access iMoba from any device with an Internet browser, an IOS app or an Android app.

Subscribe to various modules and have exactly what you need at your fingertips, wherever you are. No high investment is needed and you only pay for what you use. The base module "Performance" is free of charge and offers a dashboard. With the "Performance Pro" module, which has many detailed functions and is available free of charge for the first year, you can experience the power of iMoba. All other modules can be reviewed during a three-month trial period.

MODULE	PURPOSE	TOP EFFICIENCY	FOOD SAFETY	STRONG SERVICE NETWORK
Performance	Status of the day's production at a glance	Manager can check the status of operation at any time and from anywhere	Quality manager can keep an eye on the quality levels of incoming and outgoing eggs	Owner, manager, operator
Performance Pro	A "Swiss army knife", i.e. a versatile tool for monitoring both the performance of the machine and the eggs passing through	• Observe the effect of corrective actions, see the efficiency of a crew during the day • With a few clicks generate production graphs for sleek day/week/month/year reports always available for your board meetings	• See both short-term and long-term trends of a flock, whether it's inline or eggs from 200 farms per day • Create a yearly picture of each supplier, with the ability to focus on individual aspects such as blood eggs, for example • Traceability tables show the destination of all eggs	**The technician** • can keep an eye on the operation and downtime of the machine • can set alarms when trends suddenly take a negative turn, and schedule preventive maintenance • In combination with our Customer Care Packs, you can count on help/advice from our service department
Realtime Dashboard	Monitor the current production status of your Omnia	The production manager can configure the dashboard to suit a variety of devices and requirements, from a simple "current status" indicator on a phone to a production progress monitor on a flatscreen in an office	Quality managers can see the quality of the incoming batches in real time. In case of any doubt, they have access to an immediate view of the eggs processed at that particular moment	Following a repair, the technician can get to work on another task while still keeping an eye on the repaired machine's current performance
Benchmark	• Compare your KPIs with data (secured and anonymized) of the rest of the world • Finding room for improvement	If you worry that you might not be achieving the throughput that you expected, you can obtain a clear overview through a comparison with the rest of the world	By comparing flock results with anonymous data from other farms, it becomes obvious which farms are producing below -average quality	The manager responsible for the technical status of the majority of the machines can not only compare those, but can also obtain an objective measure of how the equipment is doing compared to the rest of the world

Note: Moba is constantly expanding the possibilities of iMoba.

Omnia software

The interface of the Omnia caters to a number of roles. The role for daily operation is relatively simple and features various templates to choose from, including the famous product-oriented programming system to simplify day -to -day operation of the grader.

But there is more. For technicians and quality managers, there are multiple tools to ensure that the grader is running like a Swiss watch, and for service teams, there are settings available to configure the machine to your exact needs. In other words, there are an enormous amount of options, though these will not present an obstacle to day-to-day operation. This "layered construction" makes Moba's Man-Machine-Interface (MMI) unique.

The grader can be equipped with one or multiple MMIs. A configuration that is very often used, is to have an MMI near the loader. This solely for the purposes of entering supply data about the eggs coming into the grader with the control center for the production manager located next to the packing lanes.

Standard functions in MMI

FUNCTION	PURPOSE	TOP EFFICIENCY	FOOD SAFETY	STRONG SERVICE NETWORK
Identification of supply	Identify source of incoming eggs by operator, scanner or ERP connection	Scanning or selecting supplies from a library saves time and prevents mistakes	Tracking and tracing (standard feature in Omnia)	
Product-oriented programming	Rapidly assign a product to a packing lane	This feature can save around a million mouse clicks per year	• All settings are "locked" in the product so that it is always 100% certain that you are producing the right quality • Complete traceability is guaranteed thanks to the auditing functionality	
Settings	Easy adjust controls and settings for weights, grades, inkjet texts, pack types, etc.	• Library storage solution minimizes operator mistakes • Changing machine settings in a matter of seconds	• Quality settings are also embedded in product settings • No chance of sub-standard eggs being included in your premium product	Through updates, we ensure that you always have access to the latest designed pack types, making your Omnia future-proof
Mobacom	Standard tool for safe remote access by our 24/7 helpdesk whenever you need it			Our helpdesk can access your complete computer system remotely via an extremely safe dedicated server with full firewall protection
Reports	Generate reports in the MMI. Reports can be printed, some if needed automatically	• Availability of egg counts • Performance info for a quick review of efficiency trends	Traceability is a standard feature and offers many ways to view links between supplies and products	Detailed logfiles are generated so that events can be tracked with millisecond accuracy by both your own technicians and Moba technicians

Optional software features

FUNCTION	PURPOSE	TOP EFFICIENCY	FOOD SAFETY	STRONG SERVICE NETWORK
Printing functions				
Inkjet-on-eggs provision	Print information on the eggs that is directly controlled by the grader, depending on the product	Real-time parameters such as the farm code or best-before date are generated by the software. No need for manually typing, so the codes are always correct	Print data related to the origin and/or destination on the eggs to support your traceability system	Inkjet communication can be verified remotely by our helpdesk
Pack print	Manage printers or labeling machines on the packing lanes with real-time information	Avoid operator mistakes by directly using the correct information from the product library	Print best-before dates and farm codes on the consumer packs to display origin	
Various programs are available to create consumer packs or trays according to overall specifications				
Mixed weight (PX only)	Combine eggs of different weights into one pack with a specified minimum weight	It's a very efficient way of combining M and L eggs while still guaranteeing a total minimum pack weight, for example. (allowed in EU)	Although grades may differ, unique identification such as a farm code is possible thanks to Moba's unique product-oriented programming system	

FUNCTION	PURPOSE	TOP EFFICIENCY	FOOD SAFETY
Batch	Combining eggs of different weights into one pack with a specified total weight	• By programming the batch picks the ideal eggs to create packs with the specified total weight are picked • "Leftovers" are integrated into normal products, optimizing the use of all incoming eggs	
Pack weight	To guarantee a minimum pack weight, specifically according to USDA standards. This functionality is compatible with the normal obligatory weight grades	Place the allowed amount of underweight eggs into a pack while guaranteeing the minimum pack weight. This maximizes your profits	
Fill weight	Produce eggs up to a certain total weight and restart with the next in a new pack. Mainly used on trays and especially used in Japan	• There is no need for any manual actions to exactly supply a gross amount of weight • High accuracy: no losses through complete rows compared to competitive products	
Fill count	Produce eggs up to a specified total number, then restart with the next run in a new pack. Mainly used on trays and especially used in Japan	• No need for any manual actions to exactly supply a gross amount of eggs • High accuracy: no losses through complete rows compared to competitive products	

Administrative functions

FUNCTION	PURPOSE	TOP EFFICIENCY	FOOD SAFETY
Separate weight limits	Extra administration for the incoming eggs according to separate weight limits	Adjust grading weight limits while administration for producers remains unchanged according to official weight limits	Perfectly follow the quality of flocks in a uniform way, with no influence from how the grader is used
Omnialink	Exchange information with 3rd party computers, for instance ERP systems	Send product orders to Omnia and retrieve results with no need to retype any information	Allows for closed loops in traceability between ERP systems and Omnia
Separate infeed counts	Keep information about two supplies separate when eggs of two origins are run simultaneously on the grader	Mix eggs from two sources to maximize the use of the incoming eggs	Although eggs of two origins are mixed, perfectly accurate traceability will be maintained for the egg

Additional machine functions

FUNCTION	PURPOSE	TOP EFFICIENCY	FOOD SAFETY
Pre-candling eggs	Eggs removed by human pre-candlers are counted via separate button boxes	No additional administration is needed for eggs that are removed manually	
Capacity control	• Control the volume of eggs on a certain packing lane or group of packing lanes to fill up equipment such as a case packer to its maximum capacity • For breakers connected to the grader, even priorities of different grades can be selected to keep the breaker at full capacity	Maximize the use of downstream equipment such as case packers or connected breakers	
Supply Quality	Sensitivity of detection systems can be automated depending on the quality of incoming supplies of eggs, according to five quality levels	Maximize the use of eggs in good batches	Be extra careful with eggs of lesser quality
Brown detection	Separate white and brown eggs or create a product with a uniform shade of brown. A blood detector is needed to determine the egg color	Incoming eggs can have different colors. Without loosing any efficiency product can be defined having a preset color	
Color-based grading (PX only)	Different weight limits can be set for white and/or brown eggs. A blood detector is needed to determine the egg color	Use the Omnia as two independent virtual graders for differently colored eggs	

FEATURES

Here is an overview of all the features of the Omnia Series. You can see at a glance what the standard and optional features are for the different machine types and find the machine that fits your needs.

For more information, please contact your Area Sales Manager.

		MACHINE FAMILY
		MACHINE TYPE
GENERAL SPECIFICATIONS		Capacity [cases per hour]
		Capacity [x 1,000 eggs/hour]
		Rows infeed
		Number of tracks
		Minimum no. of lanes
		Maximum no. of lanes
		Average no. of lanes
		Inline
		Offline
		Combi
HYGIENIC FEATURES		Cleaning in place (CIP) infeed
		Cleaning in place (CIP) weighing system
		Cleaning in place (CIP) tracks
		Downwash infeed - high pressure
		Downwash transfer
		Downwash packing lanes
		UV on weighing parts
		UV on transfer parts
		UV on track carrier parts
		UV disinfection of eggs on infeed
		Removable gripper sets in orientator (Multidrum)
		Removable packer parts (COP)
		Removable receiver cassettes
		Parts washer PW10
		Parts washer PW20
LOADING	*Inline*	Riverbed accumulator
		Individual lane accumulator
	Offline	Single tray loader
		TVS loader
		FL loader
		ML loader
INFEED		Short infeed without egg inspector
		Short Infeed without crack detector
		Manual candling (only booth with lamp)
		Semi auto candling: color keys
		Single infeed rollers
		Single infeed rollers (for washer configurations)
		Double hygienic infeed rollers (for non-washer configurations)
		Orientator (Multidrum)
		Leaker outlet (Multidrum)
		Multi outlet (Multidrum)
TRANSFER		Weighing system above eggflow
		Crack removal in weighing system
		Multi-arm transfer
DETECTION		Blood Detector
		Egg Inspector (leaker + dirt detection)
		Shell Inspector (crack + shell strenght detection)
TRACK		Matrix displays and controls above lanes
		Touch screens above lanes
		Blood removal in track
PACKING LANES		Ovoshield in packer parts
		Retractable receiverset
		Buffers in retractable drawer
SOFTWARE FEATURES		Inkjet on eggs
		Batching
		Pack weight
		Fillweight/Fill count
		Color based grading
		Seperate weight limits
		OmniaLink
		Separate infeed
		Supply quality
		Mixed weight
		Brown detection
		Capacity - and breaker control
		Upgrading per product
		Print on package
3RD PARTY INTEGRATION		Egg printing provision
		Pack print provision
		Joint washing/drying configuration
		Split washing/drying configuration

● = standard
○ = optional

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45	45	45	60	60	64	90	90	90	120	120	127	180	180	191	255	255	255
6	6	6	6	6	6	12	12	12	12	12	12	18	18	18	24	24	24
2	2	2	2	2	2	4	4	4	4	4	4	6	6	6	8	8	8
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			FL350	FL350	FL350	FL350	FL350	FL350	FL350	FL350	FL350	FL530	FL530	FL530	FL350	FL350	FL350
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YOUR TOTAL SOLUTION PROVIDER

MR50

Established in 1947, Moba is the world's leading producer of high-quality integrated systems for grading, packaging and processing eggs. Headquartered in Barneveld, the Netherlands, Moba has a product development department that employs approximately 100 staff and a factory in which the production of the machines takes place. The company employs 800+ staff in total. Moba is always close to its customers thanks to its global sales and service network, which includes offices in Japan, Italy, China, Malaysia, Dubai, the UK, Germany, France and the US, as well as support from agents and distributors.

Moba's vision is to enable food producers globally to feed consumers around the world with healthy and affordable egg-based food. Moba is evolving from a producer of egg grading machines into a technology company that develops high-quality integrated systems for the egg industry. Moba listens to its customers and understands their needs. Every egg producer or packing station has its own portfolio of products, packages and the logistics surrounding these products. Moba has designed a total solution for every specific situation by developing a well-balanced group of Autopack modules that can handle all the various packing activities found in egg packing stations.

Loader

MR10

MR40

Contiflow

MR60

MR12

MR30
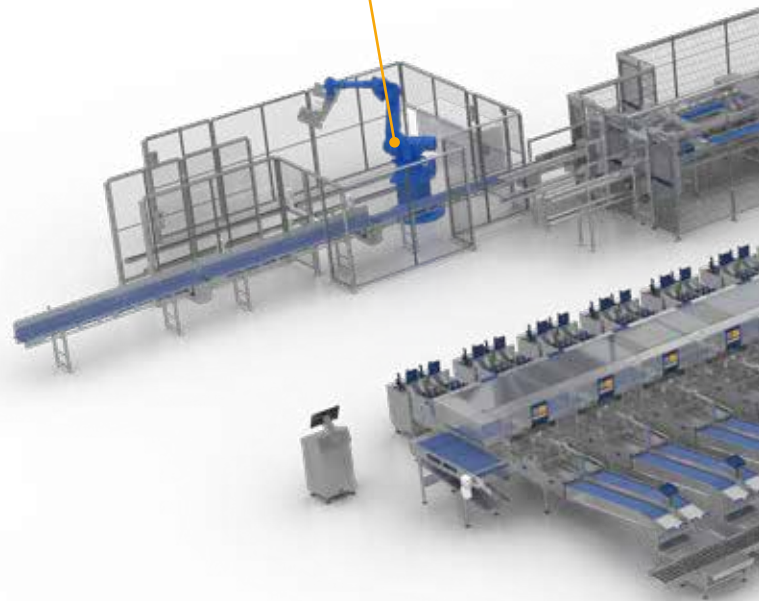
Moba supports its customers with intelligent solutions that ensure the highest yield, reduced costs and the efficient utilization of resources such as energy, water and animal nutrition. Every day, Moba's systems process around one billion eggs worldwide.