

ATLAS system

Lifting live bird handling to new standards



- Quicker, simpler loading on farm
- More broilers transported per truck
- Robust in-plant system designed for tomorrow's throughputs

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ATLAS excels on the farm, during transport and in the processing plant.



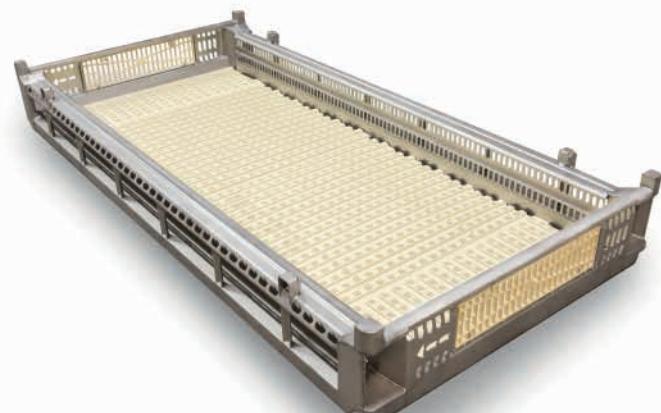
The ATLAS (Advanced Technology Live bird Arrival System) live bird handling system from Marel, which takes broilers from grower to processor, makes full use of the company's vast knowledge and experience of transporting live birds all over the world. Both have been accumulated over many years and are readily acknowledged by all those in the wider poultry industry whose interest is to get birds from grower to processor as efficiently and humanely as possible.

ATLAS has been designed to provide broiler processors with a system which sets new standards in transport cost efficiency, hygiene and animal welfare, ensuring that processors benefit to the fullest extent from birds grown to the highest quality standards.

Unrivaled flexibility

At the heart of the new ATLAS system is the innovative SmartStack transport module, made exclusively from stainless steel and synthetic materials, designed to maximize payloads and to ease, simplify and speed up handling, both on farm and in the processing plant.

The new SmartStack module is itself modular. It consists of a pallet and a number of self-nesting trays (no frame necessary). Each ATLAS tray nests securely on the tray below. The ATLAS pallet itself doubles as a tray, into which extra birds can be loaded.



Kinder to birds and catchers alike

Birds are caught and placed into each tray through a large opening in its top.

When a tray has been filled, it is closed off using the folding floor of the tray above. As floors (unlike drawers) never protrude beyond the footprint of the module itself, modules can be placed anywhere in the growing shed, even in corners or close to walls.

A large opening equivalent to some 70% of the tray's floor area and a clear, unobstructed tray floor make loading quicker and easier, significantly reducing the risk of damage and stress to the bird.

Where birds are loaded automatically, this job can be done up to 30% more quickly and with fewer personnel.

Quicker payback from increased payload

An innovative feature of the ATLAS SmartStack transport module is the design of its pallet. This allows birds to be loaded into it, in effect creating an extra tier. Compared to existing systems, up to 38% more birds can be transported on the same truck, in the same number of modules. SmartStack maintains the class-leading headroom available to each bird on each tier, a unique feature of Marel transport modules for many years now. This means lower transport costs and lower CO₂ emissions over the widest range of live bird weights.



Airflo

The ATLAS trays are equipped with Marel's unique Airflo floors, which have proved themselves over many years in all climate zones. These make use of the venturi principle to ensure a continuous flow of air to birds during transport. The floors also allow birds to grip. Channels in each floor collect any droppings from the birds. Birds therefore sit dry and the risk of cross-contamination from droppings falling onto birds in the tray below is significantly reduced.

Strong, gentle and future-proof

The open construction of the SmartStack transport module allows birds to be checked by veterinary personnel. This check can also be done during loading on farm or during transport. If a bird is found to be in distress, it can be removed by flipping over the tray side panel nearest to it. This is one of many features in

the new system, developed to give users the best possible tool for handling their live birds as humanely as possible.

On arrival at the processing plant, birds rest up in the lairage. When the time comes for them to enter the process, modules are taken by forklift truck to the ATLAS in-plant system. The SmartStack module – both trays and pallet too – is destacked into separate trays.

Smooth

Birds stay in the transport tray until they are shackled to the processing line for electrical stunning or shackled irreversibly stunned after passage through a fully integrated SmoothFlow controlled atmosphere stunning system. The ATLAS trays move smoothly through the system with no bumps or shocks. Any birds dead on arrival can be removed at the start of the process, allowing food safety and religious requirements to be met.



Clean

Food safety and the prevention of cross-contamination with pathogens are rightly vitally important issues. That's why the SmartStack module has no frame and no blind spots for cleaning. Empty trays are intensively washed in a newly developed cleaning system. A large number of precisely aimed nozzles give trays a thorough clean, setting a new benchmark in transport module hygiene.

User interface

Advanced easy-to-use software ensures that the processing line is kept full regardless of the weight of the birds delivered to the plant. When the average flock weight and number of birds per tray change, the new data is entered into a touchscreen at the system itself and the system is immediately reset.

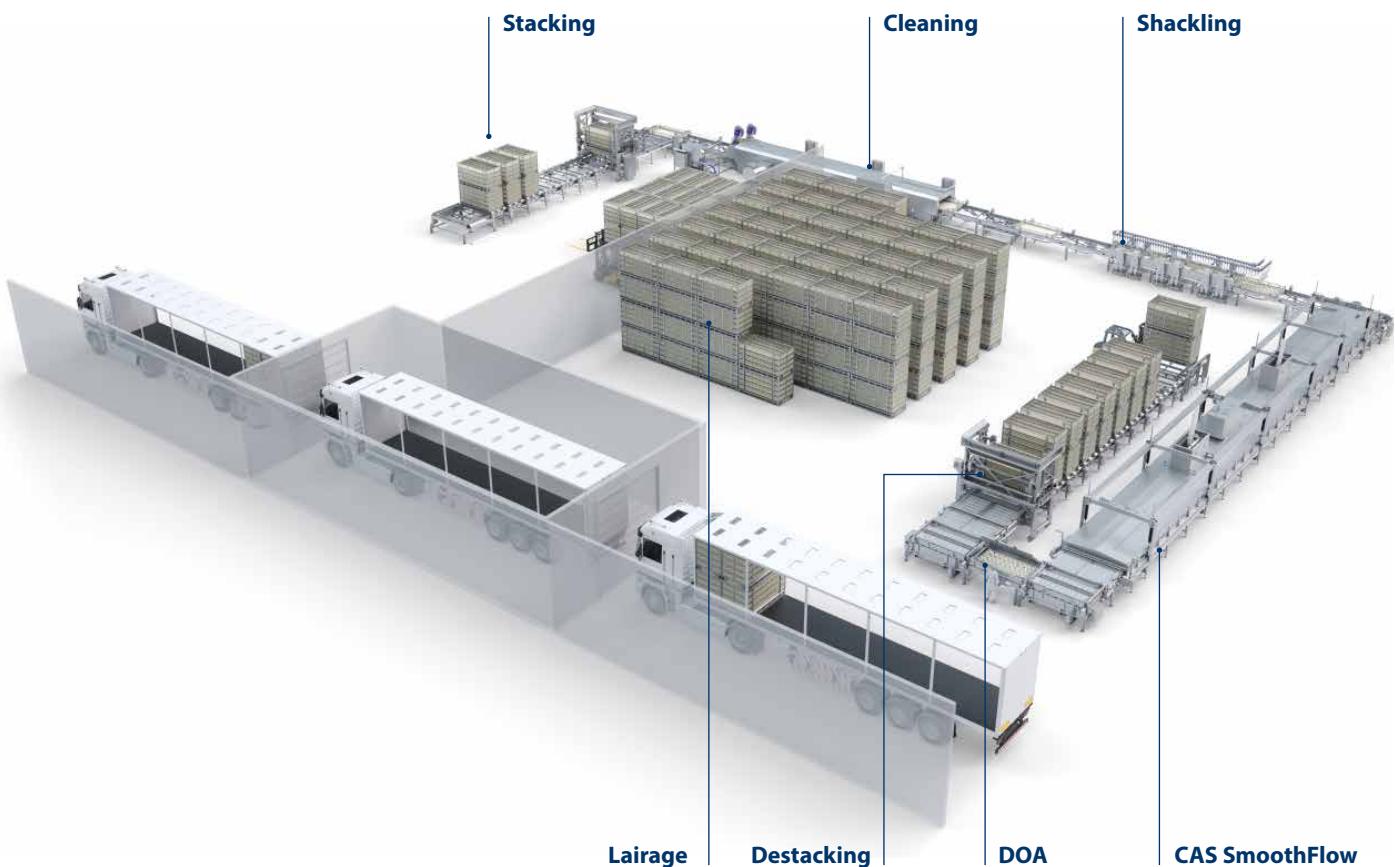
The new ATLAS system runs with the latest Marel user interface and connects with its Innova production control platform. This gives full information on the flocks processed and can be the starting point of a plant-wide tracking and tracing system.

It also continuously monitors the overall effectiveness of the equipment (OEE) and is invaluable in ensuring both the highest standards of preventive maintenance and low cost of ownership.

Round the clock

The ATLAS in-plant system, fabricated entirely from stainless steel, is logically straightforward, extremely robust and consists in the main of just three mechanical operations; tray de-stacking, tray washing and re-stacking empty trays ready for transport back to the farm. It has been designed to work round the clock at line speeds well in excess of today's highest.





Benefits:

- Complete system from grower to processor
- Designed for tomorrow's highest throughputs
- Up to 38% more broilers per journey; lower CO₂ footprint
- Unrivalled transport flexibility thanks to innovative modular module
- SmartStack module consists of pallet and variable number of self-nesting trays
- Flip-over sides give all-round access to remove birds in distress
- Pallet doubles as an additional tray
- Venturi principle Airflo floor - optimum ventilation during transport in all climate zones
- Large opening and clear tray floor speeds up automatic loading
- DOAs can be spotted and removed at the start of the process
- Seamless integration with SmoothFlow controlled atmosphere stunning system
- Birds remain in tray until shackled to the processing line
- New design modular power washer gets trays thoroughly clean
- Automatic system control by advanced easy-to-use software
- Connects with Innova production control platform to give plant-wide tracking

ATLAS has won the EuroTier Innovation Award 2016.



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