Uniquely designed live bird handling system that protects your live bird investment. Universally fits the requirements of the global poultry markets.
More than transportation
Investing in a new live bird handling system cannot be considered in isolation. Many details of the complete production must be taken into consideration before deciding on a solution: catching, transportation, flock characteristics, plant design and workers’ conditions are some of them.

As a wall-to-wall supplier of poultry processing solutions, we understand that all processing phases throughout the plant are interconnected. The live bird handling system is just one step to achieve a sustainable business. It is the first and most important step in what we call “Single Bird Processing”. Every bird represents an investment, and the value of each bird must be maximised. Only then can profits be optimised.

The UniLoad drawer and module system balances animal welfare, live bird handling costs, carcass protection and production efficiency.

With a BAADER LINCO solution, you protect and maximise the benefit from your live bird investment now and in the future.

B’Logic captures flock data. Look for the B’Logic® symbol and learn about the benefits that the software offers in specific processes

Note: Limited release
Invest in experience
Our long experience in developing and installing successful live bird handling systems makes us a well-prepared and skilled partner capable of analysing your requirements and guiding you in the decision process. We have installed more than 80 drawer systems worldwide. Our experience is your assurance for a best return on investment.

Achieve savings on the road
UniLoad uses large-size drawers and offers unique configuration options to fit specific farm characteristics and optimise truck space.

Safeguard plant throughput
The large-size UniLoad drawers allow for low speed on the reception conveyors while still feeding a high-speed slaughtering line. It is all about achieving full shackles on the line at all times.

Be serious about animal welfare
UniLoad is humane live bird handling. It is ethically appropriate and complies with animal welfare guidelines. Gentle bird handling results in higher end-product quality.

Implement CAS and improve your quality
UniLoad is ideal for implementing our Controlled Atmosphere Stunning (CAS). The BAADER LINCO CAS pit system allows for a controlled and humane stunning process. This significantly reduces bird stress and thereby costly downgrades, and it improves meat quality. Conforms to The European Council Regulation No. 1099/2009.

Be strict about biosecurity
UniLoad takes hygiene seriously by focusing on biosecurity in drawer and module design, and by providing highly efficient washing and disinfection equipment. Bacterial load on drawers and modules is minimised between loadings and cross-contamination between farms and flocks is reduced or eliminated.
Our experience is your success

When designing a live bird handling solution, we look at the big picture. We design the solution based on an in-depth prequalification of your requirements and conditions. Our experience and processing knowledge guide you on all aspects pertaining to the operation of the system: catching, transportation, lairage, stunning, shackling and hygiene.

Our motto is “Quality in all phases”. This means that each process must be optimised taking upstream and downstream processes into consideration. When quality is optimised in your live bird handling, you have the best starting point to obtain quality in your secondary processing. Each and every process aims at protecting carcass quality. Each and every bird is processed according to its characteristics.

Key benefits of a BAADER LINCO partnership
- We have twenty-five years of experience in developing and installing live bird handling systems
- We have more than 80 drawer systems installed worldwide
- Our global sales and service structure in 48 countries ensures a fast and direct customer contact

Prequalification to optimise performance
Our prequalification is a comprehensive evaluation of your live bird handling. The evaluation is based on detailed interviews with farm, transport and processing personnel, as well as by observing and quantifying bird injuries.

We compare the observations to the expectations and objectives collected during the interviews and prepare a presentation that offers a cost-benefit analysis overview.

We base our evaluations and recommendations on our experience and knowledge and we are confident in our recommendations.
Footprints that fit your truck

Farm facilities, truck characteristics and legal transportation regulations form the very basis for designing live bird transportation. You need the correct “building blocks” to be able to optimise catching and transportation. This is why UniLoad offers different drawer and module combinations.

**Key benefits of a modular system**
- Three drawer sizes to fit the width of your truck
- 4 or 5 tiers high for full height utilisation

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**UniLoad small drawer**
Inner area of 11,330 cm² capable of holding up to 70 kg given a live bird weight from 1.6 to less than 3.0 kg*. External dimensions: 1193 x 1070 x 225 mm

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**UniLoad medium drawer**
Inner area of 12,070 cm² capable of holding up to 75 kg given a live bird weight from 1.6 to less than 3.0 kg*. External dimensions: 1163 x 1163 x 240 mm

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**UniLoad large drawer**
Inner area of 13,620 cm² capable of holding up to 85 kg given a live bird weight from 1.6 to less than 3.0 kg*. External dimensions: 1273 x 1193 x 225 mm

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*Based on Council Regulation (EC) No 1/2005 but can vary according to animal welfare conditions, best practices and local regulations.
Fast and easy loading

Catching birds at the farm can be a difficult and backbreaking job. Our drawer and module design makes loading faster and easier and there is no handling of full drawers.

Key benefits at the farm
- Supports both manual and automatic catching
- The large drawer opening makes loading easy and fast
- Less bird stress and fewer injuries
- Fewer catching operators
- Improved catching operators’ welfare

Prepare the empty module by pushing back all the drawers except the bottom one

Start loading birds into the bottom drawer

When the bottom drawer is fully loaded, move to the next drawer. The new drawer will form a lid on the lower drawer

The full module is moved by a forklift
In transportation, more is less

More kg live weight on the truck equals fewer hauling travels between farm and slaughterhouse. Reducing the mileage means reducing transportation costs and carbon footprint.

The size of the UniLoad drawers allows for loading more birds into each drawer without compromising animal welfare. Larger drawers mean that you need fewer drawers to transport the same bird load - consequently your investment in transportation equipment is reduced while your truck space is optimised.

The open drawer and module construction combined with the fact that two drawers fit standard truck bed widths ensures an effective airflow to all birds at all times. At least one of the sides of the drawer is always exposed to the outside.

Key benefits on transportation
- More truck capacity with fewer modules
- More profit due to fewer DOA’s
- More A-grades and higher meat quality due to less bird stress and fewer injuries
- More labour efficiency by fewer forklift movements
- Better carbon footprint due to less fuel consumption

Customer experience
“We have experienced significantly improved loading capacity on our trucks and hence reduced transportation costs and carbon footprint. Furthermore, we see an improved uptime in the reception area and a substantial improvement in the slaughtering line utilisation – we virtually have no empty shackles”

Michael Ø. Nielsen, Group Technical Manager, Scandi Standard AB (among other brands, Danpo)
Maximised plant throughput

Once we together have decide on which UniLoad drawer fits your farm and transportation capacities, the UniLoad reception system will allow for full slaughtering line utilisation. This, in turn, ensures a high return on investment, not only for the live bird handling system, but for the complete plant investment.

High-capacity drawers
The size of the UniLoad drawers allows for more birds in each drawer. This means that fewer drawers are necessary to feed the slaughtering line. Thereby, the conveyors in the reception area run at low speed, and low speed reduces both bird and equipment stress.

When applying CAS stunning, the UniLoad system runs a maximum of 7.5 drawers per minute, while running a maximum of 8 drawers per minute without CAS.

A typical capacity example for the largest drawer size:
Average live weight of 2.5 kg provides 34 birds in each drawer. This allows to maintain an average speed of 13,500 bph with CAS for this size birds.

Key benefits at the plant
- Improved plant utilisation
- Fewer drawer damages
- Less wear and tear on the conveyor system
- Increased uptime

Minimised manual bird handling
The system facilitates a first-in-first-out (FIFO) principle throughout the complete lairage and reception area, including the CAS process. Birds remain in their drawers from farm to shackling.

FIFO minimises the time each bird is handled, and specifically it minimises the time from exiting the CAS stunning to passing the killing machine. The direct result is improved bleed-out and picking performance.
Optional: shackling is performed from individually adjustable working stations situated on both sides of the drawer allowing for a comfortable and fast emptying of each drawer.

B’Logic® Process Navigator will show you your slaughtering line utilisation and alert you if the utilisation drops.

Bird count, processing speed, bird sizes etc. are at your hand with B’Logic®.

Note: Limited release
Configurable to fit your needs

Key benefits
- Modular system design adaptable to fit actual and future needs
- Automatic, gentle transportation throughout the UniLoad system
- Shackling directly from the drawers eliminates rough dumping or tipping

1. Loading of modules on reception system
2. Module Destacker
3. Emptying Unit pushing drawers out of the module
4. CAS Pit System for stunning birds prior to shackling
5. Shackling station
6. Vertical Drawer Washer
7. Module Washer
8. Module Filling Unit
9. Module Stacker
10. Unloading modules
Food safety starts with good hygiene

The UniLoad system includes our new vertical drawer washer combined with the new drawer design to ensure the best cleaning results. Configurable washing units that effectively clean and disinfect both drawers and modules separately. Focus on biosecurity minimises cross-contamination and optimises food safety.

After shackling, the empty drawers and modules are washed separately in high-pressure washing units. After washing, the clean drawers are automatically introduced into the clean modules and can be loaded back onto the truck, ready to pick up the next bird flock.

Weighing the drawers directly on the UniLoad system - both full and empty drawers, enables you to take informed decisions about flock processing.

By combining the weighing system with DOA registration and bird count after shackling, a number of important data can be monitored: Actual total live weight intake, average live bird weight and average drawer density.

This information can be used to assess whether the delivered flock was as you expected and to get an early indication of weight distribution of the birds to be processed during the next hours. Equipment can be adjusted accordingly and production planning can be aligned if necessary.

Note: Limited release
The unique drawer design is a balance between lightweight, strength and hygiene. Lightweight to maximise truckload. Strength to minimise expensive drawer damage. Hygiene to reduce litter from farms and facilitate cleaning.

Animal and hygiene-friendly drawers

The drawers are made from a sturdy hardwearing HDPE plastic material and are designed to withstand a rough processing environment and constant cleaning and disinfection.

Airflow reaches the birds, but they cannot stick out wings or heads and get injured during transportation.

Lightweight reinforced ribs on the bottom to ensure maximum load strength of the drawer.

Rounded edges between bottom and sides to ease washdown. Drain holes ensure effective draining of dirt and water during washing.

**Designed to be washed vertically and horizontally**

After shackling the birds, the drawer is washed before it is sent back to the farm. The drawer can be washed in either a vertical, upright position or completely turned around in a “bottom-up” position. The drawer design ensures an effective washing and enables dirt and water to drain out.

Modules and drawers are washed separately for best cleaning results.
Durable, usable and hygienic modules

The robust modules holding the drawers are engineered to withstand daily truck handling and thorough cleaning. The drawer and module system is designed completely without door hinges and door locks that require high maintenance.

1. Drawers move on rails that provide a smooth movement when loading at the farm or pushing the drawers in and out of the module in the reception system. A drawer lifting lip ensures easy push-out.

2. The combination of fixed plates and tarpaulin top offers a solid top structure that is easy to clean, while still allowing for easy loading of birds into the top drawer.

3. Horizontal surfaces are minimal to reduce accumulation of dirt and water.

4. Open base frame construction designed not to pick up litter at the farm and to ensure easy washdown.

Modules are available in both double and single configuration for medium and large drawers. Small drawers are offered in single modules.

Optional stainless

Standard galvanized
Controlled Atmosphere Stunning (CAS) for best meat quality

Key benefits of CAS
- Increased animal welfare
- Fewer bird injuries
- Consistent meat colour and quality
- Significant gas consumption savings (less than 3 g/kg live bird)
- Improved workers’ welfare
- Real-time monitoring using a camera that follows the birds for a continuously optimised stunning process
- Conforms to The European Council Regulation No. 1099/2009

Various scientific studies indicate that animal welfare and meat quality greatly improves when the slaughtered birds are subjected to controlled atmosphere stunning (CAS). The stress level is reduced and painful shackling of conscious birds is avoided. Carcass quality problems such as broken bones, twisted legs, dislocated joints, skin tears, blood spots, bruises and insufficient bleed-out rate are substantially reduced.

CAS stunning is becoming an industry standard in many countries. Consumer demands and local animal welfare requirements will furthermore make CAS a good investment choice.

A stunned bird is much easier to shackle than a conscious and stressed bird. Unconscious birds also lead to improved operators’ welfare.

Electrically stunned chicken
CAS-stunned chicken

Camera and gas concentration sensors allow for a constant monitoring and control of the gas gradient. The high degree of control is what ensures an efficient stunning process and a gas consumption of less than 3 g per kg live bird.
**Stunning birds in the drawer**

UniLoad is ideal for incorporating a BAADER LINCO CAS pit. It is an effective and gentle way to stun a bird prior to slaughtering while the bird is still in the drawer.

The drawers are gradually lowered into the pit, and for each step down, the CO\textsubscript{2} concentration progressively increases, creating a gentle and controlled stunning process. After exiting the CAS pit, the birds remain unconscious during shackling and slaughtering.

**Low gas consumption**

The CAS system operates with a mixture of atmospheric air and CO\textsubscript{2}. The depth of the pit, and thus the number of steps, is determined by slaughtering line speed and bird size. Due to the pit design, the gas cannot seep out - CO\textsubscript{2} is heavier than air and will therefore remain in the pit. Gas consumption is less than 3 g per kg live weight using this method.

A gas stunning planning tool gives the operator a recommended setting based on slaughtering line speed and number of birds in each drawer. Due to a unique conveyor design, our CAS pit system can easily be adjusted to meet the required throughput of birds per hour. The unique conveyor system adjusts the number of steps in the pit and the time each drawer remains on each step. The result is a fully optimised CAS stunning process at all times.

**Unique camera monitoring solution**

In order to ensure that animal welfare is maintained through the stunning process, the birds should lose consciousness before being exposed to more than 40% carbon dioxide. A unique camera monitoring solution including gas sensors inside the stunning pit allows for easy real-time monitoring of the birds’ behaviour during the stunning process. Behaviours that can be perceived as signs of optimal stunning are monitored: loss of posture, stretching of legs, eyes closing, gasping, etc. Undesired excitement of birds, e.g. wing flapping, indicates that the stunning process should be adjusted immediately.

In addition to the camera monitoring solution, high-precision gas sensors are placed in 3 different locations in the stunning pit, transmitting data to the operator in order to maintain control of the gas concentrations.

The molecular weight of CO\textsubscript{2} is three times heavier than air which prevents the gas from leaking out of the pit inlet and outlet. It is the downward and upward movement of the elevators, drawers and birds that creates the gas gradient inside the gas stunner.

Real-time monitoring of the stunning process
Animal welfare is good business

Key benefits of UniLoad animal welfare
- Fewer DOA's and downgrades due to injuries
- Improved end-product quality and increased meat value
- High and consistent yield performance
- Animal welfare marketing opportunities and corporate image care
- New market opportunities by adopting local animal welfare guidelines

Taking animal welfare into consideration from catching to slaughtering is a growing demand both from consumers and legislative authorities. UniLoad follows the strictest requirements, including The European Council Regulation No. 1/2005 and 1099/2009.

Besides being ethical, focus on animal welfare is good business. It enables more A-grade carcasses and higher meat quality.

Designed for optimum care
UniLoad drawers and modules are designed to ensure good animal welfare from catching to shackling. In the reception area, the system is designed for slow conveying of live birds and no dumping or tipping out birds is applied - the shackling operator simply lifts the birds directly from the drawer.

Therefore, live bird stress and injuries are reduced significantly, even when running at full capacity. DOA’s and downgrades are reduced while profitability is improved. It is a simple calculation.

Committed to animal welfare
The UniLoad live bird handling system is an effective way to protect your live bird investment. The system consistently delivers minimum bird injuries without compromising catching efficiency, transport capacity or line speed.
Let us show you where the money is

A real-life example of potential cost reductions based on a prequalification report and customer feedback:

<table>
<thead>
<tr>
<th></th>
<th>Truck number</th>
<th>Hauling travels</th>
<th>Co$_2$ consumption</th>
<th>Drawer replacement</th>
<th>Carcass downgrades</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16 to 12</td>
<td>42 to 33</td>
<td>18 to 3 gram</td>
<td>10 to 2% 8%</td>
<td>15 to 4% 11%</td>
</tr>
<tr>
<td></td>
<td>4 trucks</td>
<td>9 trips</td>
<td>15 gram</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Due to higher loading capacity</td>
<td>Due to higher loading capacity</td>
<td>Due to precise control of the gas</td>
<td>Due to high capacity / slow speed concept</td>
<td>Due to no compromise on animal welfare</td>
</tr>
</tbody>
</table>

This calculation only includes quantifiable costs - to this you can add softer values such as animal welfare issues, branding and marketing advantages, operator comfort etc. Call us for a prequalification; let us find your exact savings.
B’Logic® software to protect your live bird investment

Upstream corrections

The investment in live birds is by far the largest variable production cost that any poultry processor faces. Focus on protecting this daily investment through careful bird handling, correct processing and optimised bird utilisation is good business.

UniLoad ensures optimal carcass care throughout catching, transportation, stunning and shackling. However, as a wall-to-wall supplier, our responsibility continues after shackling.

We offer you a unique method to monitor and optimise carcass quality throughout stunning, scalding, picking and evisceration.

Automatic quality grading on our ClassifEYE® vision system combined with our B’Logic® software system provides a constant information flow that will help you make immediate upstream processing corrections and avoid costly downgrades and adjust your live bird handling system if needed.

Note: Limited release
**Downstream best-fit production**

Focusing on quality in all phases to produce the best possible bird quality, the goal is to use each bird optimally in production. By using each bird’s individual weight and quality characteristics you can decide on the best-fit process for each bird. This is what we call “Single Bird Processing”.

**1.**
- Weight: 1650 g
- A-grade
- Suited for ProFlex Food Service cut-up

**2.**
- Weight: 3000 g
- A-grade
- Suited for whole bird packing

**3.**
- Weight: 3450 g
- B-grade - blood spot on breast
- Suited for ProFlex cut-up and deboning

By choosing BAADER LINCO as your live bird handling supplier, you choose to focus on carcass care throughout your processing and optimise the benefit of your live bird investment.
Quality in all phases

This brochure is current as from the publication date and supersedes all previous versions. The English version is perceived as the master document and all other versions are subject to incorrect translation. The indicated limits of the working ranges and performances may vary as a function of the proportion, quality and nutritional conditions of the birds. In order to achieve an optimal result, it is recommended to adjust the machine within the working ranges of the bird sizes mainly to be processed. Illustrations and dimensions are approximate and not binding. Subject to design changes in the interest of technical progress. Actual scope of supply is specified in our quotations and order confirmations and may differ from descriptions and photos of this brochure.

Attention! For the illustration of the technical details the safety devices and protection mechanisms are partly not shown in operative condition. When operating the machine, all corresponding devices and instructions referring to the safety of the machine are to be utilised and/or observed.