

## Optimized processes in the poultry industry

Intralogsitics solution automates container handling for around 3 000 containers per hour

When 140,000 chickens are processed, packed in various ways, labelled and shipped every day, logistics need to be highly precise. To enable further growth, family-run company Borgmeier Frischgeflügel has launched a major investment project at its headquarters in Delbrück-Schöning. With Unitechnik, Borgmeier found a partner that not only brings the necessary automation expertise to the table, but also understands the specific demands of food logistics – and together, they have implemented a high-performance and future-ready solution.

By Yusuf Kaya

Founded in 1903 as a small agricultural holding, Borgmeier Frischgeflügel has evolved into a prominent company in the German poultry industry. The family-run business, based in Delbrück-Schöning in East Westphalia, employs around 630 people and is known for its commitment to quality, established structures and a forward-looking approach. Now in its second generation, Borgmeier blends traditional craftsmanship with industrial efficiency. The company generates annual revenues of €220 million, serves more than 300 customers in Germany and abroad,



Borgmeier blends traditional craftsmanship with industrial efficiency. The company generates annual revenues of €220 million, serves more than 300 customers in Germany and abroad, and offers a product range of over 10,000 individual items.

Photo: Unitechnik

and offers a product range of over 10,000 individual items. Whether supplying local markets or major retail chains, products must be delivered fresh, on schedule and in customised packaging. The resulting logistics requirements are demanding,

### When processes reach their limits

In 2021, Borgmeier's continued growth increasingly pushed the existing logistics structures to their capacity limits. Order picking and dispatch processes were based on manual operations using handheld

scanners and were restricted by spatial constraints. At the same time, the poultry sector requires particularly high levels of process reliability. With around 140,000 birds processed daily, a wide variety of cuts and product variants, and highly specific customer require-



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Photo: Unitechnik



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Pallets, boxes and cartons are transported automatically via a steel bridge into the new logistics centre.

Photo: Unitechnik



At the workstations, order pickers place the items onto automatically supplied pallets, following instructions provided by the UniWare warehouse management system. Photo: Unitechnik

ments for packaging and labelling, the demands on efficiency and flexibility are substantial. Short response times further increase complexity – 70 per cent of orders are placed the evening before delivery, and 30 per cent on the same morning. In addition, strict regulations concerning cold chain compliance and traceability must be observed.

“The key challenge in our daily operations lies in the nature of poultry as a fresh product. We only know during production what volumes and cuts will be available,” explains Sebastian Borgmeier, Management Assistant at Borgmeier. “At the same time, many customer orders are received just hours before dispatch. This requires maximum flexibility combined with the highest process reliability.” In light of these requirements, comprehensive modernisation of the intralogistics infrastructure was essential. The objective was to implement a scalable, fail-safe and future-oriented solution to ensure sustainable logistics performance.

### High performance meets food logistics

Following a comprehensive selection process, **Unitechnik** was chosen as general contractor due to its technical expertise, understanding of logistics processes and collaborative project approach. “We were particularly looking for a partner who would engage with us at eye level and truly understand our

requirements,” says Sebastian Borgmeier. “**Unitechnik** made valuable contributions during the planning phase and helped shape the final solution.” The decisive factor for Borgmeier was not only **Unitechnik's** experience in the food industry, but also the ability to deliver a fully integrated system. **Unitechnik** planned, supplied and implemented the entire intralogis-



When a customer order is triggered, the required trays are retrieved in the precise sequence needed, removed from the trays and transported via spiral conveyors to the workstations below. Photo: Unitechnik

tics solution, including warehouse management software, control systems and mechanical components.

At the heart of the new facility is a highly automated shuttle warehouse with 31,200 container storage locations. Four aisles with 26 levels each and a total of 104 shuttle vehicles enable dynamic, sequenced storage and retrieval processes with a throughput of approximately 3,000 containers per hour. This level of performance was achieved through meticulous planning and intelligent material flow control managed by the UniWare warehouse management system. **Unitechnik** also installed a mobile racking system for the deep-freeze area, providing storage for around 4,700 pallets.

### Trays ensure high process reliability

Pallets, boxes and cartons are transported automatically via a steel bridge into the new logistics centre. Pallets are either transferred directly to the shipping area or stored in the deep-freeze warehouse. Boxes and cartons are routed to the shuttle system, which functions less as a traditional warehouse and more as a highly dynamic sorting buffer. In most cases, items remain there for only a few hours.

To ensure consistent process reliability, boxes and cartons are automatically placed onto trays. This standardises the load carriers used in the subsequent conveyor and storage systems. Before being

loaded onto trays, cartons are additionally secured with strapping. The system then stores the tray units in the shuttle warehouse. When a customer order is triggered, the required trays are retrieved in the precise sequence needed, removed from the trays and transported via spiral conveyors to the workstations below. There, order pickers place the items onto automatically supplied pallets, following instructions provided by the UniWare warehouse management system. Adjustable pallet stations ensure ergonomic working heights at all times.

The entire system is controlled by **Unitechnik's** proprietary UniWare software. In addition to warehouse management, the software handles material flow control and system visualisation. Operators are guided by clear instructions via user interfaces and forklift terminals. Thanks to this integrated platform, all processes can be managed transparently and flexibly.

### Food logistics demands flexibility and high availability

By integrating labelling lines into the overall system, Borgmeier can respond quickly to individual labelling requirements for retail packaging. The pallets assembled vary widely in the number and variety of items, depending on whether they are destined for small market traders or large-scale buyers. This highlights the different demands placed on food producers by the retail sector.



This level of performance was only achievable through careful detailed planning and intelligent material flow control managed by the UniWare warehouse management system. *Photo: Unitechnik*

A significant proportion of poultry products is shipped on the same day they are processed. “The extremely short time window, combined with the required through-

put, places enormous demands on the system’s reliability,” explains Yusuf Kaya, Key Account Manager at **Unitechnik**. “We addressed this challenge by building a high level of

redundancy into the system. Conveyors, lifts, strapping machines, workstations and both tray and pallet handling components are all designed with duplication and distributed across nine levels.”

### System rises to challenge seasonal peaks

The improvements were clearly visible in day-to-day operations as well. New employees now only need a few days to be trained, rather than several weeks or even months. Picking errors are largely eliminated. The ultimate test came during the past Christmas season, traditionally one of the busiest periods for Borgmeier. In previous years, employees had been working late into the evening to meet orders. However, in 2024, the new logistics centre marked a turning point. The processes were more structured, and the additional burden on employees was significantly reduced. “Successfully managing the seasonal peak with the new logistics centre proves that we made the

right choice in **Unitechnik** as our project partner,” says Sebastian Borgmeier. “The new logistics centre is a real milestone for us: it strengthens our competitiveness and provides the flexibility we need to continue growing.”



### Yusuf Kaya

is a graduate industrial engineer and has been working as a Key Account Manager at **Unitechnik**

Systems GmbH for over eight years. He has many years of experience in the field of logistics and automatic logistics systems. A particular focus of his work is on food logistics.

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