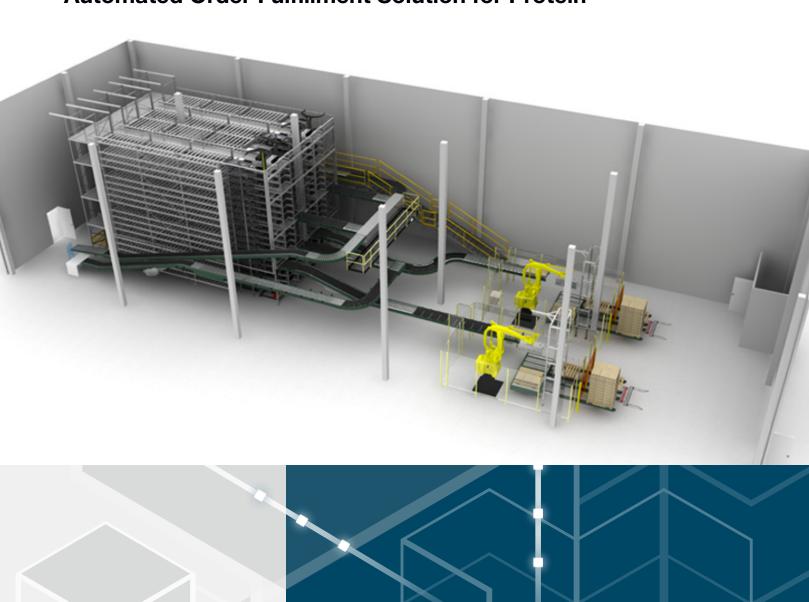


Flexible Case Fulfillment for Meat & Poultry

Automated Order Fulfillment Solution for Protein



Dematic Heritage of Innovation

Dematic provides a portfolio of warehouse logistics solutions especially designed for the Protein industry. These solutions cover the space from where the product is placed in a box to being placed on a truck. These solutions manage the specific order fulfillment requirements of the slaughter/harvest house and value-add processing/case ready/portion pack facilities that supply wholesalers, retail stores, food service and export customers. Our solutions for the Protein industry are modular and scalable, and span from automated storage only to include fully lights out automation.

Flexible Case Fulfillment for Meat & Poultry

OVERVIEW

Dematic provides a portfolio of warehouse intralogistics solutions especially designed for the meat protein industry. The solutions manage the specific order fulfillment requirements of the slaughter operations and retail ready/portion pack facilities that supply retailers, wholesalers, food service, and export customers. Dematic solutions for the meat protein industry include pallet and case handling: storage, buffering, sorting, sequencing, picking, palletizing, and reverse route trailer loading.

OPERATIONAL ISSUES

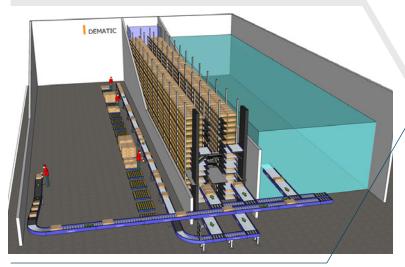
Production

- · Variable inbound flow and buffering of finished inventory
- Production schedule variability
- Products (not always rectangular solid, bone-in)
- Carbon footprint

Distribution

- Labor intensive, manual case pick-to-pallet truck method
- Inventory/order management: product code, date, weight
- Product code proliferation
- Weekly inventory build & ship cycle
- Increased order complexity
- Smaller order size
- Truck & trailer availability

The case pick solution is a modular, standardized, pre-engineered system that provides consistent and predictable case order fulfillment. The execution software synchronizes inventory in the automated shuttle AS/RS to release cases in a precise sequence to palletizing.





INTRALOGISTICS SYSTEMS

Dematic offers a variety of intralogistics systems that address the operational issues that meat protein producers are experiencing in their production and distribution operations. Dematic solutions provide compelling results by minimizing the time, space, and cost to accomplish order fulfillment.

Our meat protein order fulfillment solutions accommodate both chilled and frozen products in cases, totes, and pallets. Each solution addresses increasing requirements to reduce waste and maximize freshness while handling the increasing complexity of customer orders and case sizes. The Dematic Flexible Case Fulfillment for Meat & Poultry solutions are scalable for future changes and growth. The modular automation and software are pre-engineered and standardized to provide consistent and predictable performance.

Replace:

- Labor intensive, manual case pick-to-pallet truck method
- Lifting/handling of heavy cases to minimize potential injuries

Reduce:

- Time to process orders
- Space required with high density inventory buffer storage
- · Cost to operate with less: labor, refrigeration energy, damage

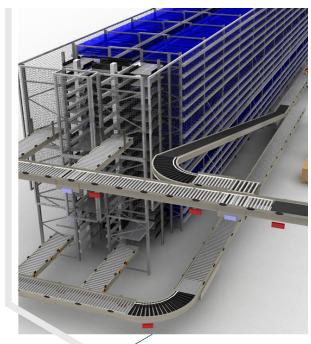
Increase:

- · Worker safety, ergonomics, exposure to harsh environment
- Food safety, tracking, scan validation
- Throughput volume and productivity
- Capacity to store, buffer, track, sequence, sort, palletize
- Rapid response capability, product freshness
- System availability; minimizing potential impact on production
- Flexibility to accommodate package varieties, sizes
- · Value added services: cross-dock pallets, oldest on top
- · Customer satisfaction, order accuracy, profit



ORDER FULFILLMENT BUFFER

The Dematic Multishuttle is a storage sequencing buffer that stores and retrieves cases of product for order fulfillment. It automatically builds, buffers and pre-sorts all the cases required for customer orders. The Warehouse Execution Software directs the cases to the appropriate storage positions within the Multishuttle rack structure based on location management business rules.



PALLETIZING

Cases of product are released to palletizing from the Multishuttle in a precise sequence. Some applications require that all the pallets are built with one product code, typical in pork distribution operations. Other applications require mixed case palletizing. Palletizing may be accomplished using labor to stack the cases on pallets. Robotic palletizing is often used for one product code palletizing and for mixed case palletizing.

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Cases of product are released from the Multishuttle order fulfillment sequencing buffer and are palletized using robots.

SYSTEM MANAGEMENT

Dematic iQ Optimize is the Warehouse Execution Software (WES) that synchronizes the inventory, shuttles, and labor to assemble orders with speed and accuracy. The entire process is optimized from inventory management, automated storage, sequencing, sorting to palletizing, and reverse route trailer loading.

Dematic iQ Optimize is configured to manage order fulfillment based on product codes, case weight, and date to maximize freshness and revenue. Order management, planning, and execution strategies assure efficient and responsive fulfillment. Case storage location and order management strategies are included to optimize the order fulfillment process. The software is scalable and can be expanded or re-configured for future change. Order accuracy and traceability is maintained with scan validation throughout.



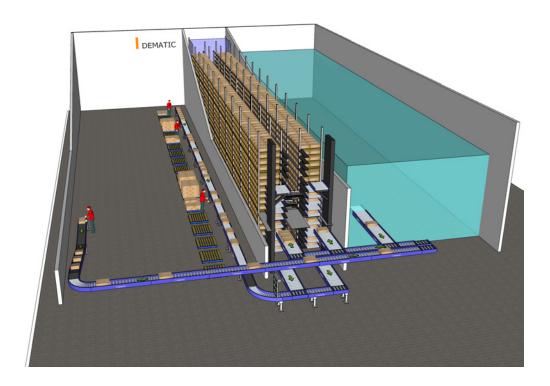
COMPARISON

The Dematic Flexible Case Fulfillment for Meat & Poultry provides higher efficiency in a smaller space. Based on a three pallet order, measuring *throughput per work hour* and *time to complete*, the Dematic solution

- Requires 400% less labor than manual solutions.
- Needs 33% less total investment than other automated solutions (smaller building and less conveyor required).
- Provides 15% more annually on business benefits.

FLEXIBLE CASE FULFILLMENT FOR MEAT & POULTRY HIGHLIGHTS

- Host interface
- Warehouse Execution Software (WES)
- Inventory & order management by product code, date, weight
- Multishuttle order fulfillment sequencing buffer, temperature controlled
- Robotic & manual assist palletizing
- Modular, scalable, pre-engineered system
- Replaces labor intensive manual case pick-to-pallet truck method





About Dematic

Dematic is an intralogistics innovator that designs, builds and supports intelligent, automated solutions for manufacturing, warehouse and distribution environments for customers that are powering the future of commerce. With engineering centers, manufacturing facilities and service centers located in more than 25 countries, the Dematic global network of 10,000 employees has helped achieve more than 6,000 worldwide customer installations for some of the world's leading brands.

Headquartered in Atlanta, Dematic is a member of KION Group, a global leader in industrial trucks, supply chain solutions and related services, and a leading provider of warehouse automation.

Power the Future of Commerce.

