Velleman

About

Velleman, located in the East-Flemish city Gavere, is one of the main producers and distributors of electronics. Because of the brand-new warehouse, as a result of the growing range of products, an investment in an advanced system for warehouse management was the next logical step for the company.

On the base of the logistics concept, outlined by the external logistics consultancy firm "**Logflow**", a thorough selection of WMS took place. The selection process resulted in the choice for the WMS solution Dynaman with C&W as preferred implementation partner.

The project

IT Environment
- Velleman uses GEMAX as ERP platform. This solution, like Dynaman, has an SQL server as basis. A real-time integration between both systems was facilitated by direct database communication.
- Next to integration with the ERP, integration with software of different forwarders (like Fedex, TNT and GLS) was executed by means of the C&W carrier integration platform.

Inventory and Environment Characteristics
- A wide range of products with a large diversity physically as well as in terms of rotation.
- The needed handling varies from miniscule resistors to complete sound installations.
- As a result, different kinds of storage methodologies and infrastructure are found within the Velleman environment (pallet racking, Kardex, shelves).
- Products occur in multiple handling units (piece/bow/outer carton/pallet).
- The complete tracking & tracing within the WMS to ensure that the lifecycle of every product on container, and lot-level can be reconstructed.

Magazijn automatisering
Within the warehouse, a set of different automation methodologies are used.
The following automations were integrated with the WMS:
- Sort to light systems at inbound delivered by Viscon
- Kardex lift systems for storage and picking:
    1. Direct communication to Kardex system by Dynaman
    2. Integration through the JMIF protocol
- Narrow Aisles Trucks Jungheinrich for autopositioning

Processes

I. Reception
- The majority of deliveries arrive in containers in bulk from the far East.
- Reception is announced in the WMS on box-level by the ERP through ASN information.
- Unloading of the boxes is handled with the assistance of a telescope conveyor and a sort-to-light installation.
- Pallet building dependent on item and destination through sort-to-light.
- Splitting of received quantities for Quality Control and Value-Added-Services.
- Putaway to narrow aisles with split tasks (reachtruck till drop, afterwards narrow aisles truck).
- Inbound replenishment where pick-locations are replenished directly from reception.
- Security of picking operators against narrow aisles trucks in narrow aisles warehouse.

II. Conditioning and Storage

- For pallets coming from reception with boxes/goods destined for Kardex storage
  (10 lift systems = 5 groups).
- Inbound Kardex on first level, Outbound on ground level.
- Conditioning of goods to Kardex system in totes of different sorts and formats.
- Trolley building with totes on the base of destination (Kardex group).
- Putaway based on balancing Kardex systems and redundancy of availability of goods in the Kardex.

III. Picking and Rreplenishment

- Pre-picking for slow-movers by narrow aisles trucks based on exact amounts.
- Dynamic Picklocations on ground level in narrow aisles warehouse.
- Release picking in function of volume and priority.
- Automatic batching of task lists for detail picking in function of due-date and volume.
- Classical zone-picking with trolleys.
- Usage of a non-demand zone.
- Replenishment of pallet by narrow aisles trucks on the base of shortages.
- Automated positioning of narrow aisles truck initiated by Dynaman.

IV. Consolidation and Packing

- Consolidation of goods from distinct zones after picking.
- Complementing waiting cues for packing.
- Packing per order(type) – pallet or collie shipments.
- Integration with carries for printing of transport company-specific label.
- Building of pallets per transport company.

V. Shipping

- Day shipments through courier services FEDEX, TNT, GLS, E59, …
- Pickups in the warehouse.
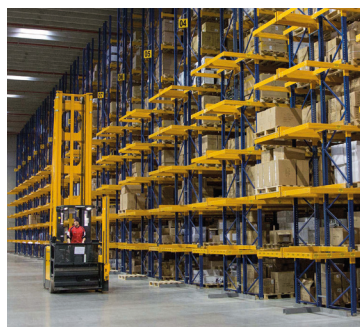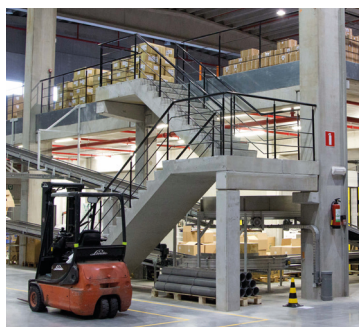- Printing of shipping documents.

VI. Internal Logistics

- In and offline cycle counting based on configurable cycle counting groups.
- Task driven reshuffle of dynamic picklocations and non-rotation inventory.
- Dynamic ABC management through Picking-On-Demand concept of Logflow, facilitated by an adjusted cockpit.

VII. WMS@Velleman Towards the Future

- Sort-to-Light for building of pallets ready for shipment.
- Usage of Voice for detail picking.
- Management assembly department by production orders (BOM / BOL) with complete material- and hour registration.

Contact

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