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FROZEN POTATO PRODUCTS

# Clarebout Potatoes

## About

Clarebout Potatoes is a Belgian company, specialised in pre-fried frozen potato products. Clarebout's manufacturing facilities are located in Nieuwkerke and Waasten. The facility in Nieuwkerke contains 2 production lines. The most recent production line was established in March 2009 in Waasten. Both production-units are equipped with the most modern technologies.

In order to facilitate further expansion, Clarebout invests in modern technologies concerning logistics. In Waasten, for example, a completely automated freezer warehouse was built with an accompanied staging facility.

Instead of working with the WMS possibilities of the ERP system (SAP) for the automation, the choice was made to work with a more advanced WMS solution, the WMS Dynamax with C&W functioning as implementation partner.

## The Project

### IT Environment

- Clarebout Potatoes uses SAP as ERP platform.
- In order to facilitate the movement of iDOCS from SAP to the WMS and the other way around, **C&W Supply Connector** serves as integration platform between Dynamax and SAP.

### Inventory and Environment Characteristics

- Mainly pallet handling with about 5000 pallets/day.
- All the products are BBD specific with continual linking to related production tasks/batches.
- Same products (item codes) with different configurations (# per pallet, pallettype) are managed by the WMS.
- The complete tracking & tracing within the WMS to ensure that the lifecycle of every product on container, lot-level and BBD can be reconstructed.
- Project was initiated in three different phases:
  1. Traditional drive-in was transferred on new WMS (RF driven)
  2. Usage of the staging automation
  3. Implementation of full automated AS/SR storage

### Warehouse Automation

Within the warehouse, a variety of automation techniques are used.

The following were integrated in the WMS:

- Inbound of supplied pallets from production by conveyors of Ceratec.
- Complete automated staging with capacity of 112 trucks (3.960 pallets) delivered by Ceratec.
- Automated storage (68.780) with handling by cranes and shuttles (orbiters) from SSI Schäfer.
- Integration with RFID (Siemens-Moijx) for loading of trucks.

## Processes

### I. Reception

- ASN notification for all produced pallets from SAP to WMS through C&W Supply Connector.
- Production Waasten integrally presented to WMS for physical reception.
- Production Nieuwkerke received through intercompany shuttles with automatic unloading & scanning.
- Possibility of reprinting production labels.
- Reception of external deliveries on SAP purchase order by RF, with control of the WMS for completeness of information dependent on the receiving customer/item-combination.
- Returns and/or unknown pallets who are not pre-registered in detail (pallet) can, by scanning the EAN 128 label, be recreated (SSCC/item/lot/THT/Qty).
- Crossdocking pallets from production to shipment, possibly through automation/staging.
- In line VAS (Value Added Services) during reception: temperature measurement with controlling tolerances.
- Products can be received in quarantine, with automatic time-managed release by the WMS or release by labo on batch-level.
- Registration of inbound returnable packaging by WMS assisted process.





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## II. Storage

- Received pallets are sent to traditional warehouse or to automated warehouse.
- Storage of non-conform high-bay pallets in traditional warehouse (drive-in) through RF.
- Storage within the automation in lanes with variable capacity that can be operated by two cranes and are accessible on both sides.
- Within automated warehouse, allocation of lanes on the base of expected batch size.
- Spreading product in the automated warehouse at inbound for redundancy in case of mechanical issues.
- Diverse reshuffle strategies for optimization of the filling rate.
- Customized storage logic, driven by putaway groups, rules and conditions in the WMS.
- Storage management of quarantine pallets, blocked pallets, rest pallets with automatic reshuffle.

## III. Picking

- Outbound shipments are sent by SAP to the WMS.
- The level of information related to the inventory to be delivered can vary from item, to item/batch to SSCC.
- WMS reservation logic, configurable by Clarebout by picking groups, rules and conditions
- FEFO picking takes tolerance of BBD into account.
- By using packing type, within one itemcode, the correct asked configuration is reserved (# per pallet/pallettype).
- Staging automation, where on every one of the 112 lanes, staging of one outbound shipment can happen.
- When shipment contains multiple delivery addresses, pallets are picked and delivered in the right sequence (reverse unloading sequence).
- Managing of outbound through WMS Dock&Yard management, with visualisation and Drag&Drop functionalities for the triggering of actions (reservation of inventory, creation of pick/transport tasks to the staging lane X, ...).
- Complete tracing of times, status and progress of shipments (arriving, unloading deposit, start loading, stop loading, take off).

## IV. Offline VAS (Value added service)

- Skimming of pallets from product A to product B.
- Complete tracking & racing of consumption components and output registration.
- Skimming of pallets from product A to product A but with new configuration (# per pallet, pallettype).

## V. Shipping

- Task driven loading by RFID integration for confirmation of loading tasks.
- Registration of returnable packaging on customer and transport company level.
- Possibility to recreate pallets from already closed shipment and to print the changed shipping documents. (e.g. in case of overload).
- Creation of necessary shipping documents (CMR, delivery notes).

## VI. Interne Logistiek

- In and offline cycle counting on the base of configurable cycle counting groups.
- Quality management for produced lots by labo with possibility to adjust on batch-level.

## VII. WMS@Clarebout Towards the Future

- Further optimization of SAP interface in order to achieve more flexibility within shipment/delivery changes.
- Further optimization of material flow and logistics warehouse processes.

