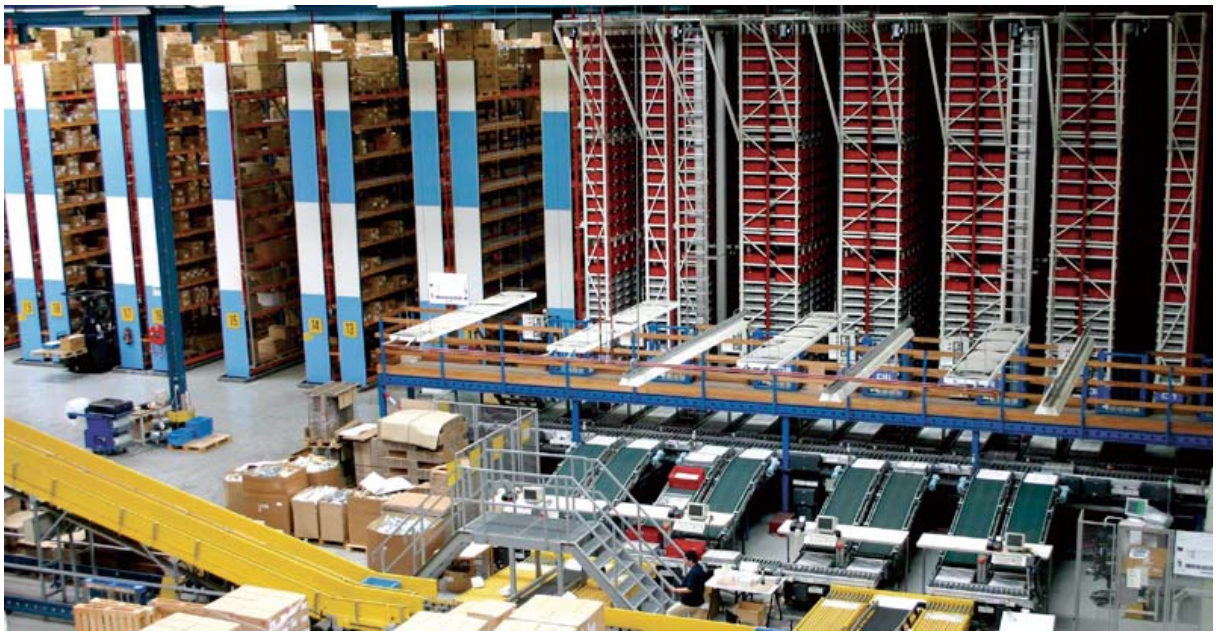
DAIFUKU CASE STUDY

Canon Europa N.V.



Canon Europa N.V. (headquartered in Amstelveen, the Netherlands) is the European sales subsidiary of Canon Inc. In 2004, Canon Europa updated both of its warehouse facilities, the Spare Parts Center at Schiphol Airport and the Consumer Product Center (CCI) at Amstelveen, both located near Amsterdam. It upgraded stacker cranes and other peripheral equipment to the latest models. Storage, shipping & receiving throughput greatly improved and helped reinforce Canon's logistics functions.

Retrofit While in Full Operation at Parts Center

Canon Europa, which was founded in 1982, currently has 562 employees. It distributes all the Canon products to a wide-ranging sales territory that includes the Middle East and African regions.

The tote-based automated warehouse system in the Parts Center known as the "Mini Load AS/RS (FS)" was initially installed in 1991, and the pallet-type automated warehouse system known as the "Rackbuild System (RB)" was installed in the CCI warehouse in 1988. However, within 10 years of the initial installation it became difficult to process the yearly increase in volume on a timely basis using

Canon Europa Parts Center

- Site Area: 10,400m²
- Building Footprint: 59,500m²
- Canon Europa was founded in 1982
- Currently has 562 employees
- Distributes all Canon products to a wide-ranging sales territory that includes the Middle East and African regions
- Equipment retrofits for two automated warehouse facilities in the Netherlands
- Empowers the logistics performance through improvement in processing capacity

these systems. As a result, it was necessary to increase the speed of the cranes and peripheral equipment. The retrofits of both system upgrades were performed without interfering with the operations.

The retrofit of RB in CCI involved the replacement of 5 cranes in the newest model and an upgrade of the old pallet transport system to 5 STVs in a loop configuration during one phase to shorten the installation period. Installation took about 3 months. Distribution during installation was provided by dealers in each area.

In the case of FS, the totes were transferred onto the temporarily expanded FS and then the cranes were replaced with a new model after expanding one aisle (storage capacity of 7,000 totes) next to the existing

facility. All cranes were replaced in phases, transferring totes onto the FSs. A platform was installed above the old tote transport system to upgrade it to a high-capability loop-type conveyor. With this retrofit, the storage capacity increased to 42,000 totes (an improvement of 20%) and the processing capacity per hour improved to 350 totes (an increase of approximately 75%).

From the design stage, both systems were developed with consideration for future increases in throughput volume. The processing capacity can further be increased (by approx. 30%) through the installation of the same type conveyors in the FS, and can be improved approximately 20% by increasing the number of STVs in the RB.

Solution Highlights

- Unit Load AS/RS (RB) – Storage capacity: 9,000 pallets
- Total 5 STVs. Throughput increased to 280 pallets/hour (180% increase)
- Parts are stored in high bay rack (left) or FS (right) depending on the characteristics
- Mini load AS/RS (FS) with twin-fork specification