

## Netto A/S



Since its establishment in 1981, Netto quickly to be the second largest retail distributor in Denmark. Netto currently has over 700 stores in Denmark and neighboring countries, and continues to expand. Netto opened a new distribution center in Koge on the outskirts of the capital city of Copenhagen in October 2003.

The new center was built to increase logistics efficiency for a growing number of products and projected future business expansion. As one of the largest centers in Northern Europe, cutting-edge technologies were introduced to provide high automation of distribution work. With Daifuku Europe as a window, Daifuku formed a close alliance with ABB, an affiliate, and other dominant material handling makers in Denmark, to successfully complete the largest project ever for the European market, on time.

With 224 stores in Denmark alone, Netto has expanded to over 700 stores in Sweden, Germany, Poland, and England. The driving force behind their success is Netto's unique business policy, which is to limit the number of everyday-items that they handle, from food to from food to miscellaneous

### Solution Highlights

- Two story AS/RS
- (32) S/R Machines
- (2) Tilt Tray Sorter — sort shipping items into 56 delivery directions
- (3) Automatic Picking Device
- (40) high speed STVs — automatically transfer products that are retrieved from the Unit Load AS/RS with a transport capacity of up to 700-pallets per hour
- Warehouse Management System (WMS by ABB)



goods to about 1,000 items, and offer them to customers at the lowest price possible through enhanced logistics efforts.

Netto's distribution volume has steadily increased over the years. They handled this with expansions and additional workers, but the existing distribution center reached its limit. In August 2000, eleven major MH companies in Europe, including Daifuku Europe, competed on the bidding for the New DC. Daifuku Europe was awarded the project for offering excellence such as a wealth of experience in the material handling industry and flexible system capacity.

#### **High Automaton for material handling works with cutting edge technology**

The new DC features a two-story AS/RS (Automated Storage/Retrieval System) including a Dry Terminal for normal temperature items and a Fresh Terminal for cool/freezer food. The receiving/shipping area is on 1F while 2F serves as a picking and sorting area.

At the Fresh Terminal, the workers register information at the WMS of items received as a full pallet at the receiving area on 1F. Chilled items are then stored at the Refrigerator AS/RS (5°C, 1,000-pallet capacity, 5 stockers), while frozen foods are stored at the Freezer AS/RS (-25°C, 1800-pallet capacity, 4 stockers). At the time of shipping, pallets are retrieved from both AS/RS to the 2F area, opposite from the receiving area, where the conveyor transports them to the picking area.

Pickers pick the required quantity and place them on the Tilt Tray Sorter, which sorts in 56 directions.

The transport flow at the Dry Terminal is basically the same as for the Fresh Terminal. Full pallets are stored at the AS/RS (10,000-pallet, 14-stocker capacity) one pallet at a time, and half pallets are stored at the AS/RS (8,000-pallet, 9-stocker capacity) two pallets at a time. At the time of shipping, STVs carry pallets that are retrieved from both AS/RSs and transport them to the picking area. Items are then picked automatically or manually by pickers.

Picked items are then placed on the sorter and are sorted into 56 delivery directions, put on a separate pallet and film-wrapped before sending them down to the shipping area on 1F via a vertical conveyor. 27 STV's transport the pallet loads to the shipping line by delivery store.

#### **Aiming for modernizing supply chains in all of Europe**

Netto regards their new DC as the first step toward modernizing supply chains. Netto will continue in increasing distribution efficiency in each country and is currently planning to build a new distribution center in Germany.

Netto was the winner of the 2004 Denmark Logistics award. This was a result of Netto's consistent efforts in logistics activities and also their achievement in cost reduction and increased work efficiency with the New DC.

