

## Itochushokuhin Co., Ltd.



Itochushokuhin Co., Ltd. (headquartered in Chuo-ku, Osaka), a major food wholesaler, runs distribution operations of processed food and liquor for Tokyu Store Corp. (headquartered in Meguro-ku Tokyo). By expanding the cross-docking Higashiogishima Distribution Center (Kawasaki, Kanagawa) with the new General Food DC Building in September 2004, delivery lead time was reduced from 21 hours to 9 hours. Quick response to store orders eliminates shortages and reduced inventory at stores. EDI (Electronic Data Interchange) was developed to enhance order placing, receiving and inspection.

### Reduced inventory volume at store level by 20% and display work time by 30%

In the past, Itochushokuhin supplied food to Tokyu Store through the TC facility (cross-docking type) of the Higashiogishima DC after each wholesaler stored the orders for individual stores. With this method, same-day delivery was not possible even for nearby stores. The biggest challenge for Itochushokuhin was how to avoid loss of sales opportunities due to shortages of inventory at store level. Another Obstacle was each supplier delivered items to the distribution center separately,

### Tokyu Store Higashiogishima DC

- 60,200 m<sup>2</sup>
- General Food DC Area: 10,000 m<sup>2</sup>
- Total Floor Area: 23,700 m<sup>2</sup>

### Solution Highlights

- Multi-Purpose PCS handles picking liquor with varied container sizes
- Processed food ball picking using PCS
- Processed food case picking: A worker picks cases from the Unit Load AS/RS racks and places them on the conveyor
- Unit Load AS/RS (3 cranes, total of 3,570 pallet-storage locations) has 2-tier picking areas on both sides. The lowers rack has retrieval stations
- JSUS with a sorting capacity of 60,000 cases/hour (at 26 chutes)
- The work progress status can be monitored from the office on a large LCS screen. Instructions are sent to the work areas via internal PHS



even though items were the same category, resulting in challenges for store display assembly. To improve customer service, Itochushokuhin needed to decrease the work load and increase speed.

The new DC was built to resolve these problems and to cut distribution costs. The DEC stores about 6,700 items of room-temperature processed food, soft drinks, etc., and delivers daily on schedule to over 90 stores. With the inventory on hand, the lead time is dramatically reduced to less than half of the conventional method. Orders received by noon are delivered by 9 pm on the same day. Sorting products by category and delivering them on a cart that is wheeled through the store aisle increases work efficiency by eliminating the need for transferring delivered items from truck to the store's own carts. With these improvements, the store inventory volume was reduced by 20% and the display work time was cut by 30%.

Significant changes were also made to the information system. Inspection efficiency has greatly increased by establishing EDI with 220 suppliers, completely eliminating the inspection work at stores. LCS (Labor Control System) was developed to accurately calculate in real-time the

required number of workers per hour for picking and sorting. Accurate control of workers contributes to increased productivity inside center.

#### **Case/Ball picking area on both sides of AS/RS**

The DC is 2-stories high with the receiving and shipping located in one area and the storage and picking areas, which are designated separately for processed food, liquor, and soft drinks, are located in a separate area. Received processed food is first inspected with the RF Handy Terminal and sent to pallet-storing Unit Load AS/RS. At the time of retrieval, case items are picked by labels and ball items are picked using the PCS (Picking Case System). Picking mistakes are virtually eliminated using the bar code inspection as the item is picked.

Special features of the case/ball picking areas include the 2-tier construction built around 3 Unit Load Systems. Picking stations are installed at the side of the Unit Load racks for providing efficient replenishing to the case and ball picking racks. Liquor is processed in the same work flow as the processed food, except it is stored on pallet racks. Picked items are transported via conveyor. High-speed sorter JSUS (Jet Surfing Sorter) sorts items by store and loads them onto carts by category. To offer a flexible shipping system, the DC has cross-docking lines that handle immediate shipping after receiving.

#### **Aiming for 800 million yen reduction in material handling and store operation costs**

Tokyu Store will celebrate their 50<sup>th</sup> anniversary in October 2006. For the last 3 years, the Tokyu Store has, and will, promote a logistics revolution as the most critical theme. These past three years will be regarded as a period to "Establish the base for growth toward the new half century". The first step in these revolutionary efforts was the building of the DC that fulfills the function of a "general, centralized distribution center". With the new center, Tokyu Store is aiming to cut costs, 5 million yen in material handling and 3 million yen in store operation.