



# Distribution Center & Material Handling System

The Washington State Liquor Control Board warehouse and distribution center was originally built in 1947. Almost 40 years later, the distribution center was facing repairs and updating expenses of over \$6 million and shipping volumes twice its original intent. In 1996, the Board, with support from the Legislature, began to design and build a new facility.

The original distribution center has been replaced with a new \$10 million, 160,000 square-foot facility on the existing Seattle site, paid for by a surcharge on liquor.

In tandem with the new distribution center, a Material Handling System (MHS) was installed to handle the 43 million units that annually pass through the facility. The goals for the MHS design are efficiency, ergonomics, accuracy, and business process improvement. The system includes automated carousels, high mover accumulation lanes, automated conveyor systems, ergonomically designed de-palletizing stations, Warehouse Management System software to direct daily activities, and a narrow aisle rack pallet storage system where turret trucks do all storage and retrieval. The MHS has been operational as of April 2002.

The MHS provides the distribution center with the ability to:

- ◆ Receive 17,000 inbound cases, and ship 17,000 outbound cases in an 8-hour shift (7.5 hours total productive time).
- ◆ Operate 8 hours per shift, 5 days per workweek, with the ability to operate additional shifts up to 20 hours per day, 6 days per week.
- ◆ Reduce warehouse breakage.
- ◆ Coordinate all material handling system components.
- ◆ Keep multiple cases of individual brand codes on a store's order together for delivery to the truck.
- ◆ Improve response to customers (retail stores and suppliers).
- ◆ Not utilize manual picking from pallets as its major material handling solution. This allows for minimal physical lifting of cases by workers, reducing their injuries and maximizing their safety.



**Benefits of the MHS include:**

1. Increased accuracy:

A 75% reduction in store billing errors (a savings of approximately 22 hours/per week of distribution center staff time)

An 80% reduction in inventory errors

An 80% reduction of paper processing

A 60% reduction in lifting of cases

2. Reduction of physical inventory to once per year instead of 3 times per year. This eliminates 4-6 days of warehouse closure.

3. A 65% reduction in overtime hours. The system ships more cases in less time.

4. Easier access to warehouse information. More information is available in real-time

5. Better foundation for implementing electronic business partnerships with suppliers.

For more information regarding the Washington State Liquor Control Board Distribution Center or Material Handling System please contact Mike Wolfe, Liquor Control Board Facilities Planner, at (360) 664-1710.