

Okamoto Corporation



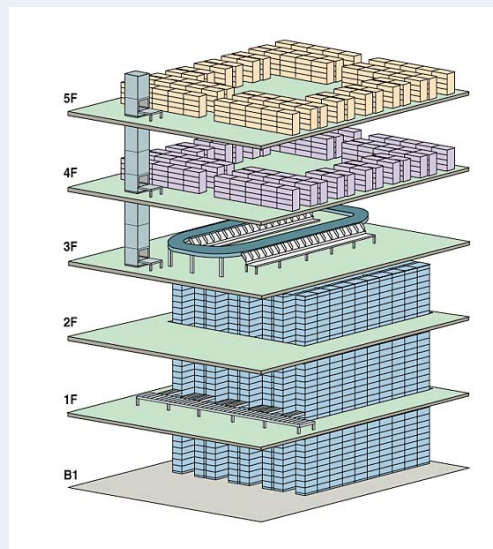
Okamoto Corporation, a leading manufacturer and distributor of leg wear products, such as socks and panty hose, offers a wide variety of top-of-the-line quality products. Okamoto currently has manufacturing facilities in Nara and Hyogo, Japan and in China and Thailand. Six distribution centers deliver to major supermarkets and retail stores throughout Japan.

The Kasugai Logistics Center was built in April 1991 as the headquarters for Okamoto's logistics system. To adequately and economically update their equipment to compete with volume increases and smaller shipping lots, the center has slowly expanded its system rather than building a complicated material handling system at once.

In February 1992, Daifuku installed a case storage Mini Load AS/RS (Automated Storage/Retrieval System). As handling volumes and item variety increased, a high-speed Ski Sorter was added in 1997 to handle small items. In April 1998, a Digital Pick System was introduced to increase efficiency of picking and sorting, thus enabling Okamoto to realize its goal of same day delivery for orders received by noon.

Solution Highlights

- Ski sorter sorts 5,000 pieces per hour with a speed of 328 feet per minute
- Mini Load AS/RS stores and retrieves 300 cases per hour





High speed sorters used for numerous sorting destinations

The Kasugai Center is a five-story building with one story at basement level. The Mini Load AS/RS is situated in an open area stretching from the basement to the second floor. The Digital Pick Systems are located on the fourth and fifth floors, and the Ski sorter system is on the third floor. Products delivered from each factory are temporarily stored in the Mini Load AS/RS. As orders are received, the required quantity is retrieved from the AS/RS and transported to the Digital Pick area on the fourth and fifth floors where product is sorted and picked for shipping. The Mini Load AS/RS has a 7,680-case storage capacity with four S/R (storage and retrieval) Machines. Up to 2,300,000 pieces of leg wear products can be stored.

Orders are received at the center through an online system. All orders are centralized at the host computer for processing shipping commands.

The items scheduled to ship same day are digitally picked in multiple batches. Since the variety of leg wear has increased dramatically in recent years and the shipping amount greatly varies with the changing seasons, extra part time workers are needed during the peak winter time. The Digital Pick System is easy to operate even for seasonal employees and ensures fast and accurate picking. Items are picked on the fourth and fifth floors are

transported to the third floor via lifter. The Ski Sorter sorts items by piece unit for each store and then products are packed and sent to the distribution center that is specified by bulk-sale stores. The center distributes products to 1,200 stores.

The Ski Sorter was introduced to achieve a sorting capacity of up to 100 chutes. “We used to have 30 workers for the sorting process, but it is now handled with half of the people”, says H. Akiyama, distribution center chief manager.

The Kasugai Center serves as a model for effective material handling systems. Expertise gained by the company at the Kasugai Center has been used in the development and operation of newer logistics centers in five locations throughout Japan.