Inner Mongolia Yili Industrial Group Co., Ltd.

Inner Mongolia Yili Industrial Group Co., Ltd., is a top dairy producer in China, headquartered in Huhhot, the capital city of Inner Mongolia. In July 2005, Yili built the largest and the most advanced milk processing plant in Asia in conjunction with a coexisting distribution center, inside the Huhhot Main Factory premises. With high-capacity production systems and AS/RS, the new plant increased production capacity and achieved a faster supply chain system.

Complete automation of material handling system from production to shipping

Yili processes dairy products including milk, butter, cheese, and powdered milk in dozens of manufacturing plants throughout China. Products are mainly distributed domestically, but are also exported to neighboring countries such as Mongolia and Vietnam.

Milk consumption had been low in China where it is not customary to drink milk everyday, as it is in Japan or in Western countries. With the diversification of dietary habits and the health conscious trend of recent years, milk consumption

New Milk Processing Plant

- Yili brand: Asia's largest milk processing plant completed in Huhhot, (Inner Mongolia) China
- Realized a faster supply system utilizing advanced logistics automation
- 15,000 employees
- 2004 sales of 13.2 billion yuan (about 200 billion yen)

has rapidly increased, especially in metropolitan areas, and is expected to grow even more significantly in the future.

With the anticipation of such growth in demand, Yili built the new milk processing plant along with a Distribution Center. The Distribution Center introduced the Unit Load AS/RS Rack-supported Building System (RB) with 21,024 pallet-storing capacity and a load handling area.

The factory produces about 1,500 tons of fresh milk daily with 18 production lines. Processed milk is poured into paper cartons and transported to the packing line in the distribution center via conveyors. Palletizing robots then stack the cartons onto pallets. These pallets are temporarily stored in the AS/RS, delivered by a loop-type high-speed "Sorting Transfer Vehicle (STV)". When it is time for the products to ship, an STV transports the pallet that has been retrieved from the RB to the shipping area. The shipping volume per day is about 2,000 tons, which includes products coming from other plants. With cutting-edge automation technologies, no manual handling is involved from production, to packing, to shipping.

The construction of 5 more new plants is planned for increased production

Yili is projecting its continued trend of increasing production volumes into the future. The company's plan includes building 5 new plants in locations such as Xinyang, Hefei, and Hebei by 2007, introducing the same cutting-edge material handling systems used in Huhhot.

The Huhhot Plant has continuously attracted visitors from inside and outside China. A recent visit by Vice Premier Lee was extensively covered by China's national news station. Also, many key figures from outside of China, such as Prime Minister of Mongolia and the heads of the Japan Red Cross are among those who have visited this facility.

Solution Highlights

- RB (21m H x 55m W x 115m L - 69'H x 180'W x 377'L) with truck berth on the left
- Three palletizing robots automatically stack milk cartons onto pallets
- Palletizing area with RB on the far left side.
- Truck berth at the load handing area (2,160m2): Forklift is used for truck loading.
- RB (11 cranes) and STVs (8 units): Loop-type STV has a transport capacity of 247 pallets/hour on the total rail length of 220m