

TURNKEY SOLUTIONS FOR MATERIAL HANDLING SYSTEMS



Have you ever wondered when you are flying, how the food and the drinks reach your seat? Obviously the flight attendants bring the carts from the galley to your seat; however this needs to be organised such that every plane receives the right carts at the right time.

Within the flight kitchen of Emirates Flight Catering (EKFC), where the cart transport system has been supplied by Unitechnik, the carts have a long way before they are taken on a delivery truck to the aircraft.

First a truck takes all the used carts from the plane to the flight kitchen. All these are emptied, which means all the left-overs and used trays are taken out and food disposed of. An employee then puts the carts into a special hanger which takes them via an overhead monorail system to the cart washing machine. The carts are separated from the hanger automatically and after a cart has been cleaned it is joined to the same hanger. The hangers are then transported to a destination within the facility where they can be loaded again with trays and other items, which are to be delivered to one of the next flights in due time. Before the carts are loaded on to the dispatch truck they are stored in a chiller. The overhead monorail also takes stock from the bonded store to the dispatch area for the customers who want to enjoy a glass of wine on the flight or purchase some gifts from the on board duty free shop. Unitechnik implemented the automation and IT system for this cart transport system with over two and a half kilometres of monorail system installed within the facility. There is also a bin transport system in the facility for which Unitechnik supplied the IT system as well. These highly sophisticated material handling systems are available more than 99% of the time. The local subsidiary of Unitechnik provides after sales service to Emirates Flight Catering for the scope delivered.

The flight kitchen EK 01, where the above mentioned system is in operation, together with the old system EK 02 produces more than 150,000 meals a day. Since Emirates is growing at a high rate and adding one A380 to its fleet per month, meal requirements are also higher. Currently Emirates is expanding with its EK 03 facility next to the entrance of the cargo village and today's capacity will be doubled. Unitechnik has been selected during a tendering process to supply the automation not only for the next overhead monorail system but also for automated guided vehicles (AGVs) which will connect the existing facilities to the newly added one.

Besides automation for catering facilities, which Unitechnik also supplied for Lufthansa LSG and other Airlines, they also deliver fully automated high bay storage systems for different applications.

Unitechnik provided the automated library for the Princess Noura Bint Abdulrahman University for Women in Saudi Arabia's capital Riyadh. Up to 4.5 million books and other media are stored in 90,000 totes located in 12 aisles served by automatic storage and retrieval machines. Students can retrieve any book via terminals within 15 minutes maximum processing time.

Unitechnik has supplied automated systems also in the logistics and food related industry. Integrated National Logistics (INL), located in Dubai Logistic City, is operating a high bay storage system for frozen goods with 14 aisles, totalling in storage capacity of more than 43,000 in-house pallets. The goods can be stored at various temperatures up to -28 degrees Centigrade.

In Saudi Arabia a company producing sleeves for fruit juices is using an automated carton transport system installed and commissioned by Unitechnik.

The company also has expertise in air cargo handling systems. The Dubai Flower Centre is an apt reference. Two elevating transfer vehicles which can carry loads of up to 14 tons each, serve a high bay storage system for air cargo containers and pallets. At Dubai World Central Unitechnik supplied the first air cargo handling system (freight gate 08).

When it comes to distribution and in house logistics, Unitechnik can automate the process and keep the inventory with its own warehouse management system brand UniWare.

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