



Distribution center for IT accessories: a permanent flow of goods and a high availability is prerequisite in the online-trade.

Picture: Krepela

## Elegantly updated

### Permanent warehouse modification at the distribution company for IT accessories Soft Carrier was carried out without breaking up the logistic chain

**Whoever operates within a limited time frame like mail-order and distribution centres, has to rely on a perfectly controlled technology and automated work processes. The 'soft-carrier Computerzubehör GmbH' draws its conclusions from this: At the latest upgrading of the logistics centre Trierweiler the wholesaler oriented all constructional measures at the automation technology.**

Soft-carrier cannot complain about a lack of orders. Since 1986, the special distributor for computer products and office equipment

enlarged his business volume. Today 47,000 articles from 170 label producers – from the paperclip to the printer accessories – are managed, packed and shipped. Up to 2000 packages leave the warehouse daily. The majority of the orders are received online. This presumes a permanent flow of goods and a high availability of goods. As general contractor for the construction the wholesaler engaged the specialist Unitechnik. The task: Replace manual working steps by 'automation and linkwarehouses' to increase capacities. One part of the task spectrum was the integration of the existing data processing

world and the new control technology during running production. In addition, there was the coordination of numerous subsuppliers for mechanical equipment.

When the order was placed, the storage was operated as a pure supply depot with space for 2,600 pallets and 15,000 bins as well as a materials handling technology for incoming and outgoing stocks. The actual order-picking was executed at a different location of Soft Carrier, carried out mostly manually. The order was for the enlargement of the storage capacity by 23,000 to 38,000 bins, the computer-aided order picking, packing, and shipping as well as the conveyor network of these parts of the plant. Industrial processes and material flow were designed more efficient in order to reach an output of 900 picks/h with six commissioning agents.

However, the actual challenge of this order was the retrofit scenario. Unitechnik has recommended the permanent use of the Siematic S7-400 from Siemens. The retrofit had to be done in permanent operation. First, the seven new aisles for the enlargement of

the Minishipment Warehouse (AKL), then the material handling technology which combines the new and the old aisles with the commissioning. Furthermore, the existing parts of the plant had to be reset automatically and integrated in the new system, all this during operation. In the pallet storage the modification could be done in one weekend and took over the complete inventory data into the new system. This procedure was not suitable for the bin storage, and therefore the 15,000 bins had to be restored from the old AKL in the new aisles. For six weeks each evening at 5 pm the old materials handling technology was coupled with the new technology and the bins were restored. During this time, both systems worked parallel. Relocation orders had to be sent to both systems from the inventory control system. Both systems share peripheral devices like the label printer. Only then, the existing stacker crane and the material handling technology could be modified electrically and integrated in the remaining system. Then followed the integration into the order picking, the packing

and the shipping. The warehouse management computer and the lower-level material flow computer coordinate the complete logistics of this distribution center. (DVZ 30.11.2004)

#### ORDER SEQUENCE

A typical order at Soft Carrier is executed in the following way. The mainframe of the company X, which places an online order for ten standing files, 150 CDs and one coffee machine. These articles are stored in single bins (38,000 storage locations) or on pallets (2,600 storage locations) in the minishipment or high-bay warehouse. The automation technology always knows, which articles are where and in which quantities. The eleven stacker cranes recognize the right product via

the barcode and send them via conveying belts to the order-picking, following the principle 'product to men'. There, a monitor shows the order of the company X. The commissioning agent packs the ordered quantity in a so-called 'customer bin', which is then passed on via conveying belts to the packing and the shipping. So six commissioning agents can handle up to 900 Picks per hour. (DVZ 30.11.2004)

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