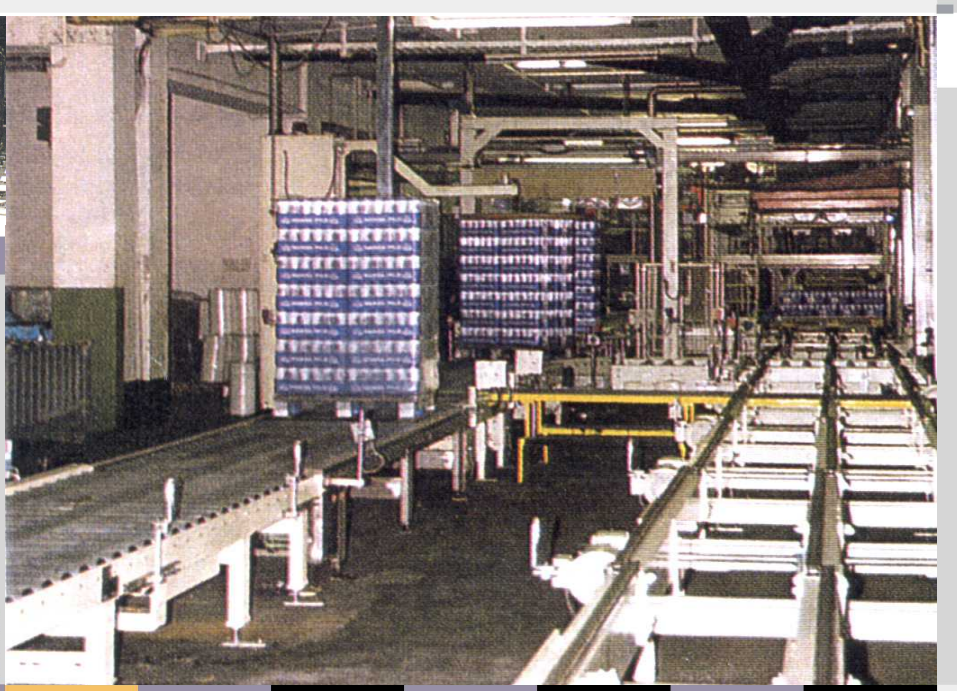
Pallet transport system in a brewery



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One of the most traditional companies in Dortmund is the Dortmunder Actien-Brauerei AG . Their annual production of 4 million hectolitres of beer makes them one of the largest beer brewers in Germany.

To optimize the in-house transport of pallets for the goods ready to be delivered and to reduce the movement of forklift trucks considerably, Max Dörr Förderanlagen was integrated to plan, design and supply an entire pallet transport system to bring together and make available the appropriate number of pallets to the newly created transfer stations for the fork lift trucks.

Roller conveyors, chain conveyors, accumulating roller conveyors, transfer stations, rotating stations and transport vehicles form the main components of the complicated transport system.
The mechanical design ensures that there are no gaps between the individual chain conveyors even at the interfaces between rotating, transfer or transport stations thus making sure that every pallet is transported in the best way possible. This is especially important when pallets are transported transversely or in the case of half-pallets.

Together with the signal transmitters the programmable logic controller ensures that the full automatic system operates reliably and safely.

The transport units for the fork lift trucks, for example three Euro pallets, two brewery pallets or eight half pallets are automatically formed at the lift off stations. If e.g. three Euro pallets are positioned one behind the other at the transfer station ready to be picked up by the fork lift truck at the transfer station, this conveyor line is not released again until the entire transport unit has been picked up by a forklift truck.

The same principle applies to the other pallet sizes. A transport unit of eight half-pallets is formed in two levels at the transfer station by positioning and aligning four half-pallets one behind the other and then this “half” unit is transported transversely to the stop limit. Then the next four half-pallets are transported. The entire transport unit of eight half-pallets is then picked up by a fork lift truck and transported in one go.

The system has been working satisfactorily for quite some time now for all those concerned and is a perfect example of an optimal transport system which has been adapted to suit an already existing system. Despite the extremely high stress factor only a minimum of maintenance is required.