

Multiload palletising system — Project principles



CSi has developed a tailor-made materials handling and palletising system for the leading cigarette manufacturer Reemtsma in Langenhagen in Germany. This large-scale project was installed and commissioned while production continued, and its distinctive feature is that the 500 different tobacco products can be individually palletised by variety.

The huge variety of products being made simultaneously requires an exceptionally flexible palletising system. All the products are first collected on a more than 180-metre long conveyor and are then sorted out by product type to the accumulator sections.

Accumulation is done there on 20 lanes at two levels and there is a continuous feed to the two palletisers from this accumulator zone. The controls of the accumulator sections and palletisers can be completely disconnected from each other, so that if there is a breakdown in one palletiser, the other can take over its work straight away. A second option in the event of a breakdown is to guide the cases from a height of 3.20 metres to the ground floor to be palletised there by hand.

An important factor in the design of the system was that the complete production space had to be used as efficiently

as possible. A large part of the floor surface under the installation remains free for example, because the system is mounted on a specially designed platform.

The entire installation can be permanently monitored by the operator by means of the control system supplied by CSi. In addition, the very user-friendly Eagle man-machine-interface programme ensures that the operator can adapt the preprogrammed palletising schedules himself with no time lost, and without a CSi-engineer having to be called in for this work.

The great reliability of the production system and the fact that the installation can be operated completely autonomously within a very short time are the major assets of this CSi project.



IMPROVING PERFORMANCE



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IMPROVING PERFORMANCE

The ultimate in logistics at the house of Reemtsma



Two-part roller deck

The heart of the system consists of two C5001 high-capacity palletisers. Distinctive feature is the two-part roller deck, which achieves the controlled and accurate stacking of the cartons.



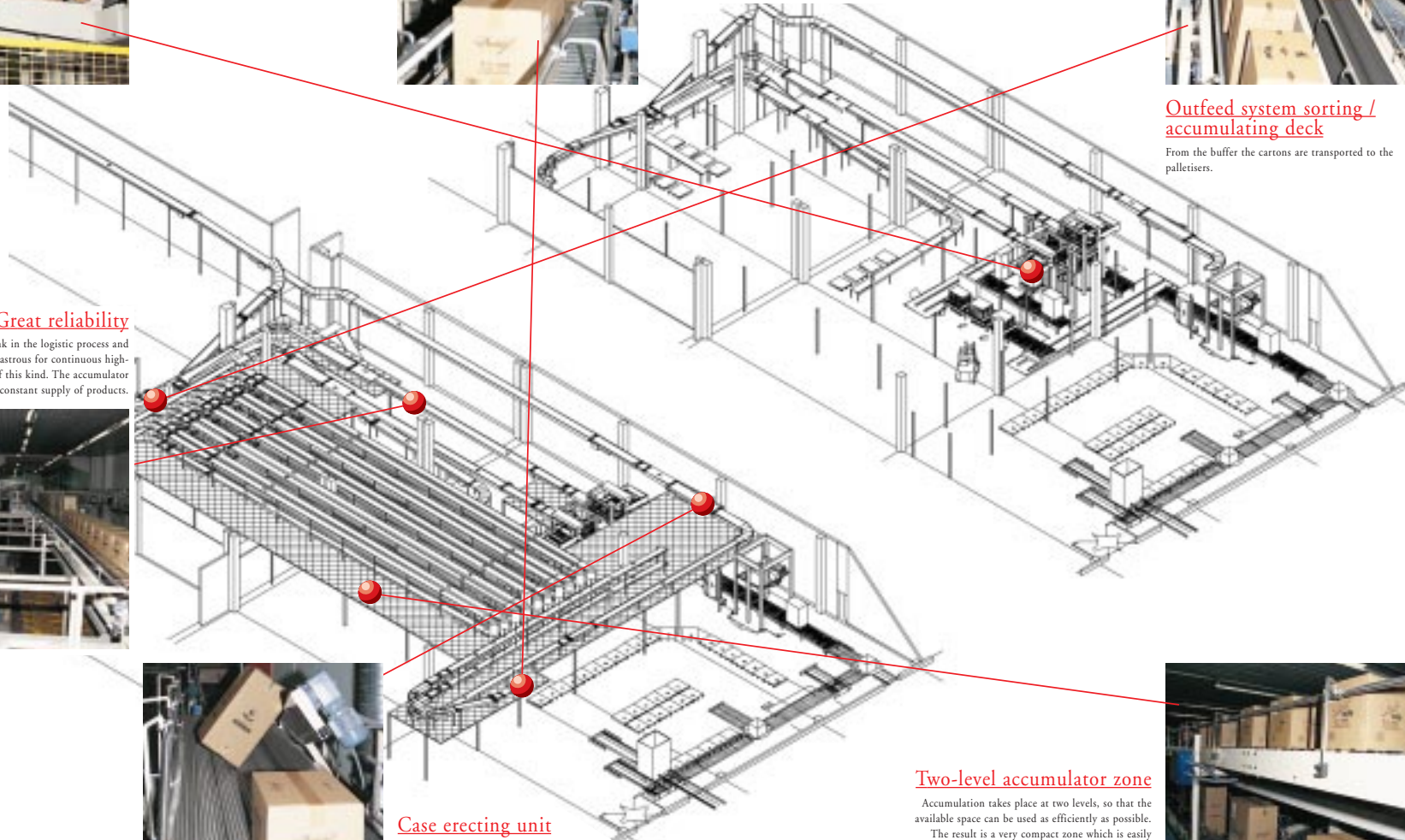
Individual recognition of each separate product

An ingenious bar code system ensures that each separate carton with its individual properties out of the 110 possible variants is recognised and registered. Each carton is conveyed to the correct accumulator lane via a raising belt sorter. When a pallet load is complete, it is channelled out of the accumulator section to be transported to the palletiser.



Outfeed system sorting / accumulating deck

From the buffer the cartons are transported to the palletisers.



Great reliability

Palletising is the last link in the logistic process and breakdowns here are disastrous for continuous high-capacity production of this kind. The accumulator section ensures a constant supply of products.



Case erecting unit

The cases are transported in a lying position. During transport they are erected, so that they can be palletised upright.

Two-level accumulator zone

Accumulation takes place at two levels, so that the available space can be used as efficiently as possible.

The result is a very compact zone which is easily accessible at all points, and where the products to be palletised are grouped under perfect control before being channelled through as a complete pallet load.

