

INDIVIDUALITY



PROVEN SOLUTIONS

OUR PRODUCTS:

- Material Handling Equipment
- High-Bay Storage Systems
- Area Storage Systems
- Automatic Storage and Retrieval Systems
- Feeding and Stacking Systems

OUR PRODUCTS FOR THE TYRE INDUSTRY:

- Automatic Tread Booking
- Manual Booking
- Scrap Handling
- Tread Loading at Tyre Building
- Green Tyre Handling
- Tyre Storage and Sorting
- Cassette and Leaf Truck Storage

AUTOMATIC TREAD BOOKING

Customer specific solutions



Knowledge ensures movement

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Individuelle Materialfluß- und Lagertechnik

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Loading systems meeting highest standards

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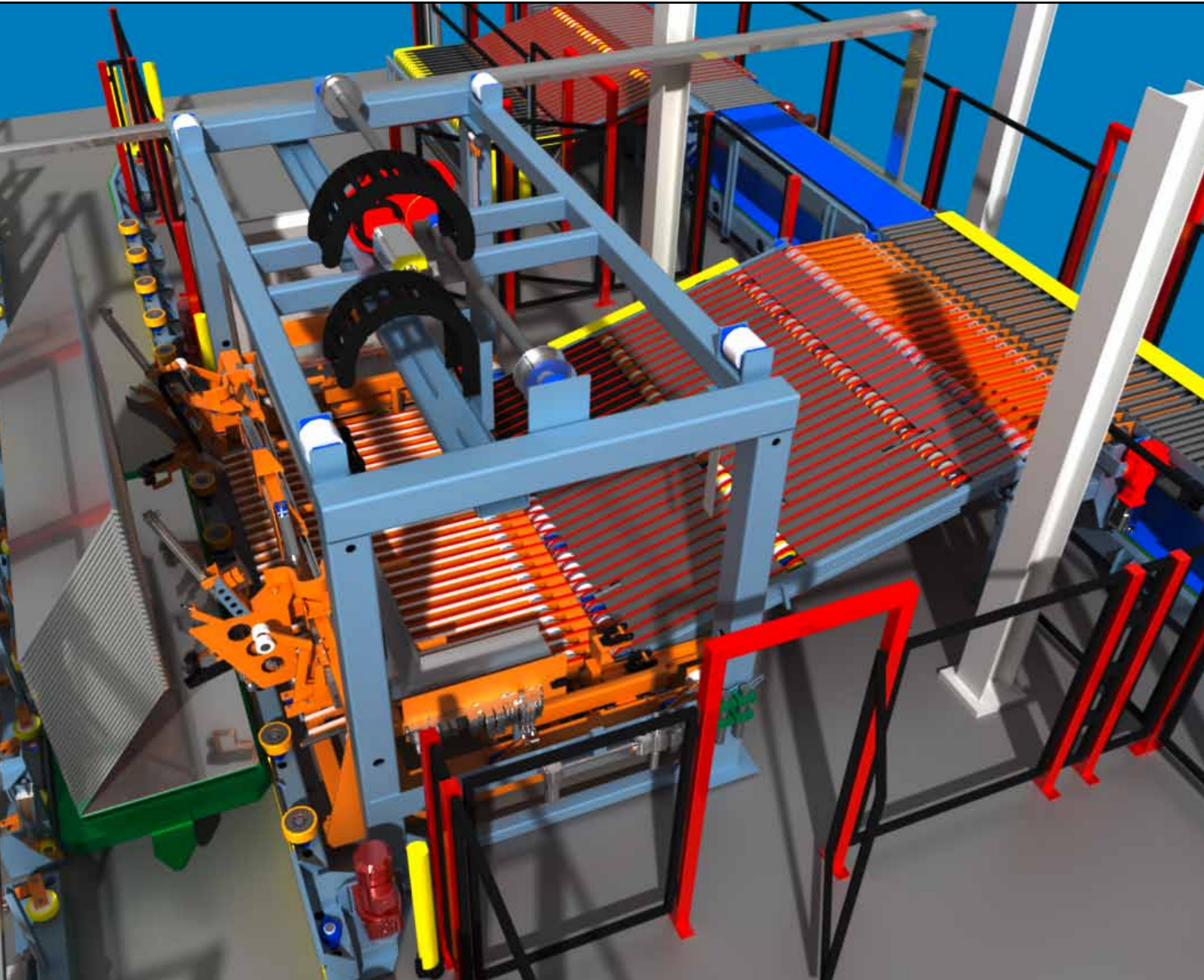
IMPROVED PRODUCT QUALITY

Improving Product Quality by Implementation of Automatic Tread Booking

Automatic booker loading devices are well known and used in the tyre industry for quality assurance of treads and tyres as well as for rationalization.

Faster extrusion speeds and requirements for higher accuracy encouraged the tyre manufacturers to replace the manual loading with automatic tread booking systems. More and more booker loading systems were installed to alleviate the problems associated with manual loading.

DISTORTION FREE BOOKING



Improved Product Quality

Tyre quality depends on the correct transport and storage of the initial products. It does not matter which booker type is used or whether you need to flip the treads or not. What is important is the accurate and uniform depositing of the green treads to guarantee a constant high quality.

Loading with Belt Tray Mechanism

The heart of the loading system, the belt tray mechanism, accomplishes the loading of the treads. The transfer belt conveyor transfers the treads to the accumulation belt conveyor, where they are collected to a batch with precise lateral spacing between the treads.

Distortion Free Booking of the Treads

After the buffering, the complete batch is conveyed to the belt tray. The belt tray moves with the batch into the open leaf truck. Immediately after reaching the end position, the belt tray begins to retract while its belts are running forward with exactly the same speed of the retracting belt tray and thus the batch of treads is kept stationary in relation to the leaf, resulting in its precise positioning on the leaf.

Booking without Touching the Surface

The advantage of the belt tray is that the treads always lie on the belts with a tight spacing under their own weight, and the surface can be finely structured as well as freshly cemented as it is not touched.

Automatic Leaf Folding ensures Fast Cycle Times

The movement of the hold down, which pushes the leaf down, and the movement of the suction cups, which have opened the leaf for the hold down, are synchronized and save cycle time.

Continuous Production because of Automatic Leaf Truck Change

As soon as all leaves are loaded, the filled leaf truck is transported to the exit position. Simultaneously, an empty leaf truck, waiting in standby position, is now automatically moved into the place for booking whilst the arriving treads meanwhile have been accumulated and buffered on the belt conveyors.

Manual Booking and Scrap Handling

Several additional solutions that are connected with tread booking, e.g. manual booking and work-off stations, have been established. Treads of false length or weight are automatically eliminated. Fully automatic solutions for the handling of scrap are added to the range.



Advantages of Automatic Tread Booking:

- Improved product quality
- Continuous production - increased output
- Reduction in manpower

The modern Charging Head with Belt Tray consists of the following major components:

- Belt tray with variable moving stroke and driven belts
- Automatic leaf fold down device with down holding elements
- Belt tray lifting with spool system for quick level adaption
- Servo drives in combination with standard PLC

Automatic Tread Booking Systems are composed of the following major components:

- Infeed roller conveyor with variable speed drive
- Manual booking station for rejected treads
- Vacuum flipping or lateral transfer station
- Cross transfer conveyor system for batch collection and buffering
- Lifting platform with belt tray for loading the leaves for the leaf trucks
- Automatic leaf fold-down in combination with down holding elements
- Automatic leaf truck conveyor system for a loading process without an interruption
- Electrical control system (Allen Bradley, Siemens)

The specialists
for material flow technique

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