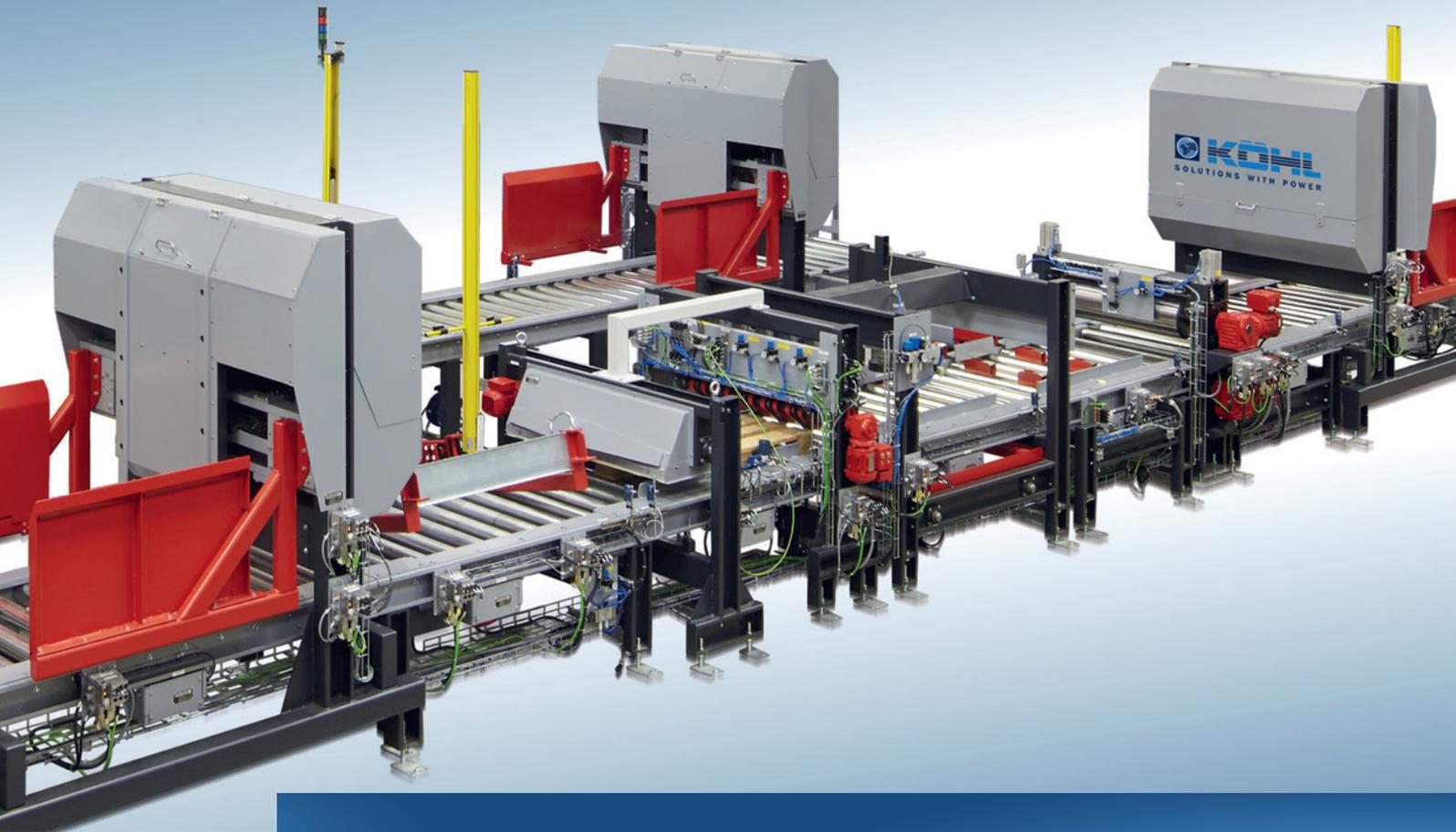




LPK

EMPTY PALLET CHECKING



Innovative empty pallet checking system (LPK)

Fault-free pallets ensure a seamless process in your intralogistics system.

KÖHL empty pallet checking system

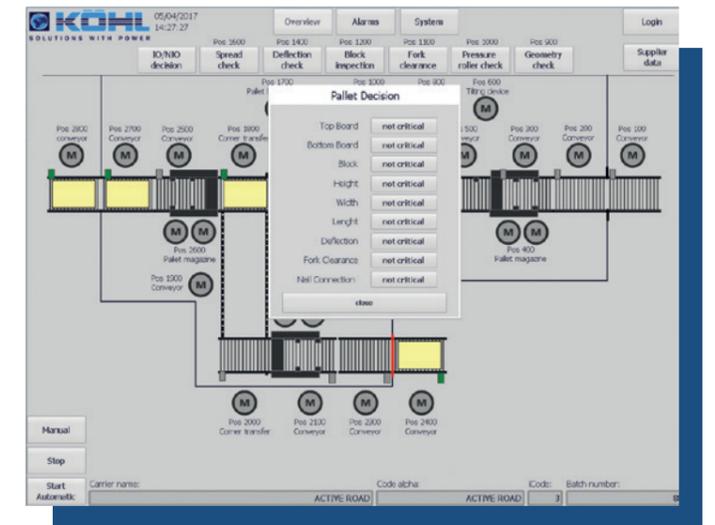
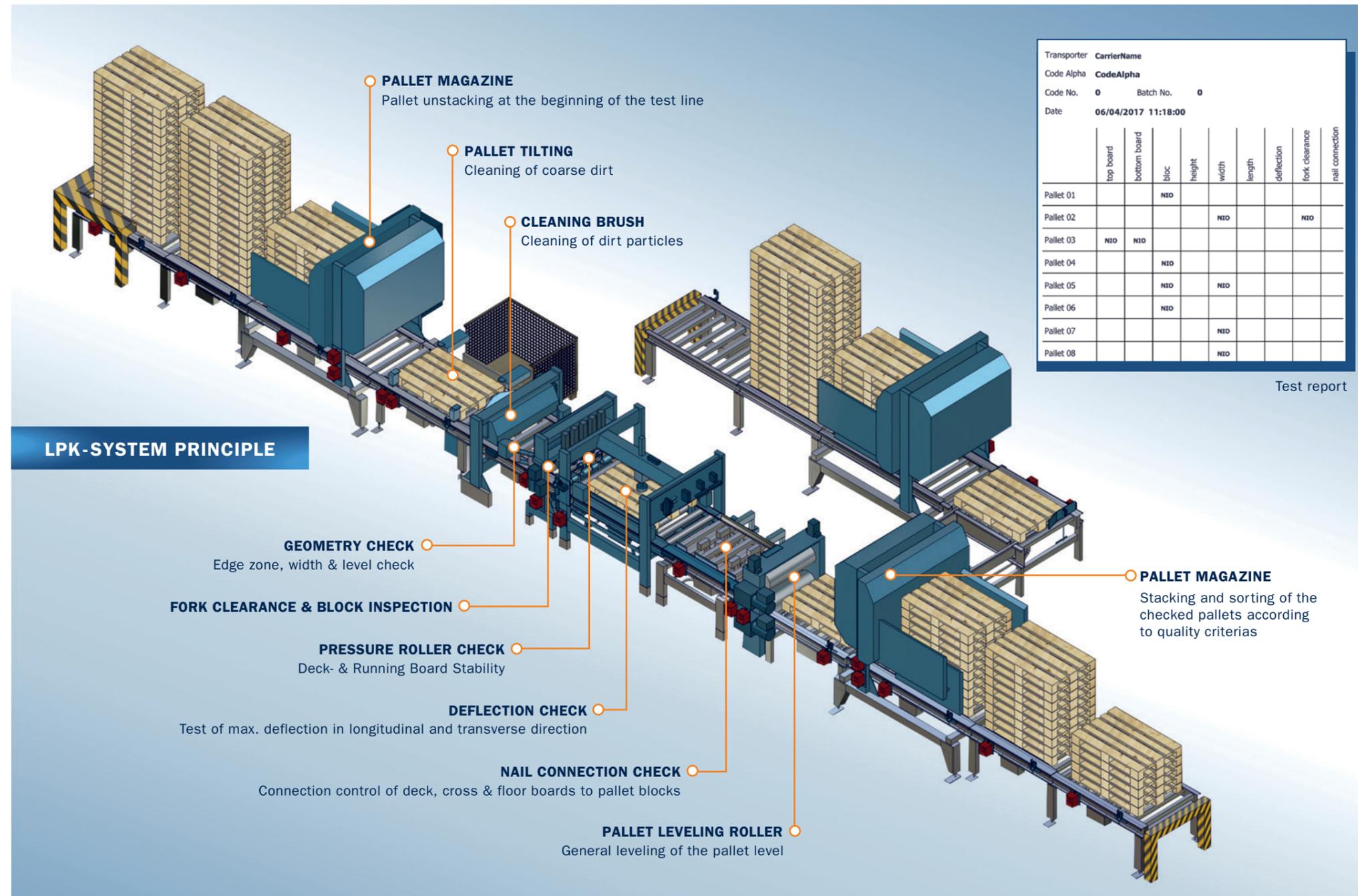
Automatic checking and sorting

Pallets that are to be supplied to an automated logistics system must be of superior quality in terms of dimensional accuracy and stability. Any deficiencies with regard to these quality markers can cause interruptions in the automated goods flow. That causes costly downtimes, service applications, resultant repairs as well as packed goods onto defective or instable pallets may be damaged.

Forward-thinking companies are opting for a check of the pool pallets by the fully automated KÖHL empty pallet checking system. The system ensures that only faultless and undamaged pallets are supplied to the material flow (palletizing and transport systems, high rack storage, rack operating units, etc.).

LPK-FEATURES & BENEFITS

- Modular design (modules can be customized)
- Available as a „standalone“ or integrated system
- Conveyor system and layout adaptable
- State-of-the-art
- Robust and user-friendly construction
- Modern visualization for operation and analysis of the system
- Creation of test reports for digital communications with higher-level system
- Easy maintenance



CONTROL TECHNOLOGY AND VISUALIZATION

The KÖHL empty pallet checking system has modern control technology and visualization, which informs the operator at all times about the test results.

In the visualization, the test parameters such as height / width of the pallets, maximum height difference of the cover boards, distances of the laser distance meters, tolerance of the edge zone control etc. can be easily modified within the scada system.

Should the deviation surpass the defined tolerance range, then the system will set an error code for the relevant pallet and shows the specific error on screen. Checking criteria can be configured individually at any time, allowing for a high degree of flexibility.

COMMISSIONING AND TRAINING

The KÖHL empty pallet checking system is designed according to your requirements. After commissioning with instruction of the operator, we are also available with our professional after-sales service.

Pallet checking in a continuous process

Freely configurable system modules

Effective & efficient capacity utilization

Testing up to 300 pallets per hour/ test line



PALLET MAGAZINE

The pallet magazine - consisting of an electrically driven jack with a gripping unit - stacks or destacks the pallets (total weight up to 500 kg) depending on their position on the test line.

At the beginning of the test line, the pallets are singulated and supplied to the empty pallets checking system. The stacking of the tested pallets is carried out after the quality classifications.



CLEANING WITH TILTING AND BRUSHING STATION

The electrically driven **tilting device** removes loose foreign objects, such as cover sheets or coarse dirt, from the pallet by a 110 ° rotation. The waste can be collected in an on site available container.

The rotating, height-adjustable **cleaning brush** sweeps the remaining dirt particles from the cover plates of the continuous pallets. A protective hood prevents the dirt particles from being thrown off and is equipped for the connection of suction.



PRESSURE ROLLER CHECK

The **roller pressure check** controls the deck and running boards for their stability, and whether boards are missing or broken.

The test rollers generate a previously set pressure load by means of cylinders on the boards; If one of the cylinders exceeds the value entered, the pallet is reported as defective.

The status of the test rollers is visualized. Parameters such as test pressure and maximum tolerance deviation can be set individually.

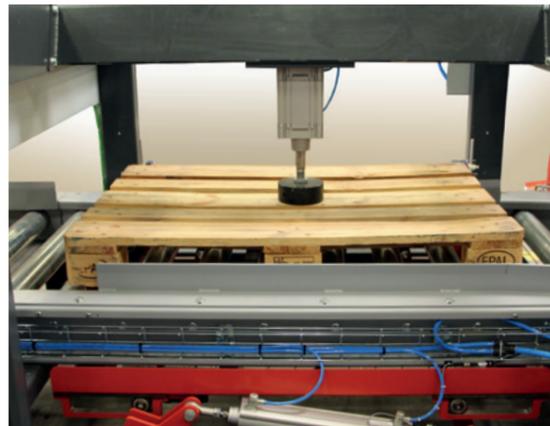


GEOMETRY CHECK

The **edge zone check** of the deck and running boards recognizes possible breakouts at the outer edges by the use of a light barrier.

By „swiveling“ the contact rollers in the **width control**, possible breakouts of the deck boards are recognized and evaluated.

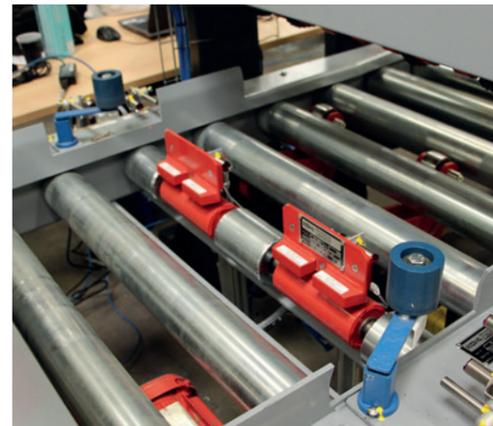
The **level check** not only controls the total height, but also determines the level of the individual deck boards.



DEFLECTION CHECK

This test module controls the maximum deflection of the pallets in the longitudinal and transverse directions. With a pneumatic lifting unit, the pallet is lifted from the roller conveyor and pressurized with the pre-set pressure via a test punch.

The connection strength of the deck and running boards to the blocks is checked by pressure and spreading in order to ensure the suitability of the pallet for automatic high-bay systems.



FORK CLEARANCE & BLOCK INSPECTION

The fork clearance and block inspection form a module unit. The fork clearance is controlled by means of pivoting flaps, which project vertically upwards into the fork clearance of the pallet. If there is insufficient free space, the test flaps will cause an error and swing away to avoid damage to the sensor system. The size and existence of the spacer blocks is determined by laser distance measuring devices.



NAIL CONNECTION CHECK

The nail connection check consists of a movable base plate with two lifting traverses and six spreader cylinders (pneumatically executed).

The spreading cylinders slide into the interstices of the runners and check the connections of the deck and cross boards or bottom boards to the pallet blocks.



PALLET LEVELING ROLLER

The pallet leveling roller is used to allow any protruding elements, e.g. nails, stabilizing the log connections and equalizing the pallet level.

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