

PALLET LIVE STORAGE



The dense and ultra dynamic storage system for palletised goods.

PALLET LIVE STORAGE SYSTEM

Stow's live storage system provides efficient and ultra dense storage of palletised goods. The roller tracks can be built in conventional pallet racking. The wide range of pallet racking frames and beams is available for the optimal design. The beams are fitted giving a fall of approximately 4%. The roller tracks lay on the beams and are fixed using special beam clamps.

FIFO (FIRST-IN / FIRST-OUT) LIVE STORAGE SYSTEM



Stow's live storage system provides dense and ultra dynamic storage of palletised goods using gravity. The goods are inserted at the on-load face and travel down under the force of gravity. At the off-load face the pallets can be removed. With this system pallets are stored according the first-in/ first-out principle (FIFO). It is also used to avoid internal transportation. In this case, driving distances of forklifts are reduced, and IN- and OUT-traffic is separated.

LIFO (LAST-IN / FIRST-OUT) LIVE STORAGE SYSTEM

The push back system, also realised with roller tracks, provides a last-in/ first-out operation (LIFO). In this case the pallets are loaded and unloaded from the same side. The lift truck pushes the pallets into their storage location and they return under the force of gravity.







- Complies with the European FEM and EN regulations; quality assured to ISO 9001.
 Computer aided design ensuring the best solution for every application, including static calculation
- \rightarrow All components have been thoroughly tested in specialized laboratories. \rightarrow Fully automated production to a high quality standard and in a cost -
- effective way



DESIGN CRITERIA

THE PALLETS / AMBIENT CONDITIONS

- The shape, the handling direction and the quality of the pallets are the determining factors for the design of the live storage system. For some pallets only twin track rollers can be applied.
- The ratio maximum weight over minimum weight is max. 3 to 1.
- This type of racking is not suitable for wet conditions, outside use, extreme dust, oily conditions or pallets in poor condition.
- For normal applications blank steel rollers are used; sometimes galvanised rollers are provided.

THE SLOPE AND THE PITCH OF THE GRAVITY ROLLERS

The slope depends on the shape and material of the pallet and the weight range of the pallets to be stored. Preferably it must be verified under test conditions, using pallets supplied by the customer. The roller pitch depends on the quality of the pallets, the handling direction and the load as such.

Brake rollers along the lane control the speed of a traveling pallet. A pallet separator mechanism within the roller track isolates the first pallet, to facilitate the removal of pallets. Lifting the pallet will release the separator allowing the next pallet to roll into the "unload-position".

MORE THAN A GOOD IDEA!

Stow can organise documented tests with any kind of pallet or carrier in its test facilities. Tests can take away any doubt or uncertainty with certain carriers in order to achieve a sure and trouble-free hand over and operation afterwards.

(CLEAR BENEFITS FOR EVERY APPLICATION)

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BRAKE ROLLERS

Brake rollers control and secure the traveling speed of the pallets, ensuring a safe gravity system.

- Diameter : 80 mm
- Max pallet Weight : 1400 kg
- Max pallet Speed : 0,3 m/s

Brake rollers can be foreseen with gummi coating in case metal pallets are stored, to avoid pallets slipping over the brake rollers.

ROLLER TRACKS AND COMPONENTS

The shape, handling direction, weight and the quality of the pallets are the determining factors for the design of the live storage system. For some pallets only twin (or even triple) track rollers can be used (for instance handling pallets at their 1200 mm face for picking operations). The twin track rollers are also used at the loading and unloading sections if the forks of the lifttruck cannot be tilted.

- 1. Load section tri-track
- 4. Unload section full rollers
- 2. Load section full rollers
- 5. Unload section tri-track
- 3. Middle section
- 6. Unload section twin-track floor mounted



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SEPARATOR SYSTEM

The separator system isolates the 1st pallet in the lane from the other pallets behind to facilitate the offloading.

Features

- Lane load up to 20.000 kg
- Separates pallets with different weights
- Separator is self-regulating and returns to normal functioning should a failure have occurred

OPTIONAL FEATURES

- Small pitch of gravity rollers: e.g. when pallets are transported in their cross direction.
- Entry guidance at the loading side facilitates the correct positioning of the pallet onto the roller track.
- Manual pallet separator: hand- or foot-release mechanism for picking applications.
- Safety features at the picking side for manual picking on raised flooring levels.



positioning guidance



Heavy duty unload section floor mounted with entry ramp



Front roller track for moving of empty pallets



Manual separator system



Tiltable roller tracks



Wheel stops for better fork-lift positioning



Side guidance for better control of a cruising pallet



Electrical or pneumatical separator system

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DIFFERENT APPLICATIONS POSSIBLE



FIFO or LIFO with picking level / aisle



with commissioning tunnel



Mezzanine application



VNA with picking or combined with carton flow



Pallet live installation with picking tunnel



Pallet live installation with shuttle solution above

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INSTALLATIONS & APPLICATIONS







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