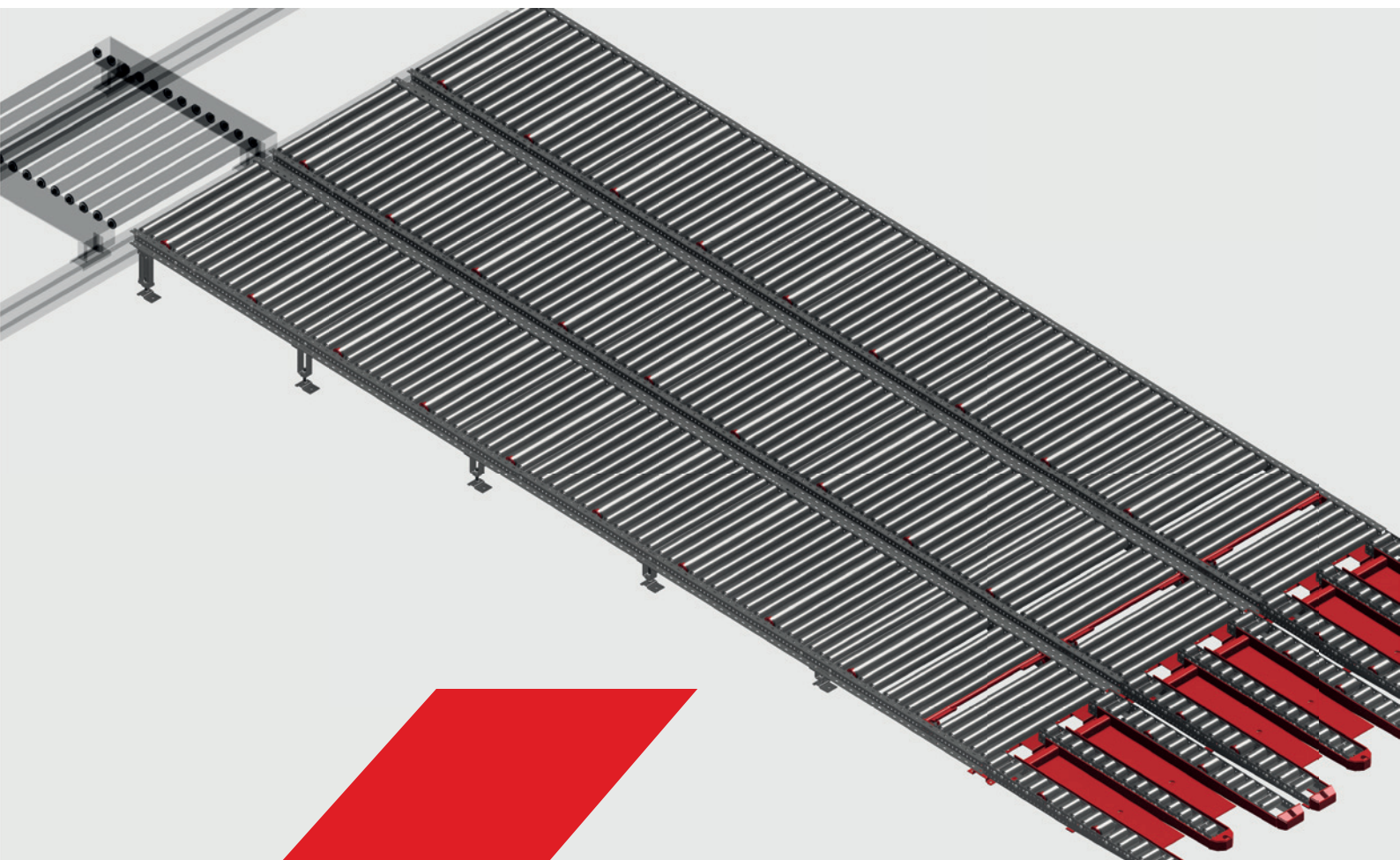


Gravity Roller Conveyors (GRC) by Fluxus Solutions





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Gravity roller conveyors (GRC) are high-performance, floor-level conveyor systems that use gravity to drive pallets and operate on the first in - first out (FiFo) principle.

There are no motors to move the pallets, instead gravity takes over this function. Conveyor roller conveyors are suitable for heavy-duty applications with high pallet throughput, e.g. for tour provision in the shipping area.

Functional Description

Gravity roller conveyors are loaded with pallets on the loading side by means of automatic storage and retrieval systems (AS/RS) such as transfer cars, electric monorails or automatic stacker cranes. Due to the slope of the lanes, the pallets run from the infeed to the outfeed point. If a pallet is removed, the next pallet automatically follows - so the goods are always available.

The organization of the warehouse according to the FiFo principle ensures permanent warehouse movement, since the first pallet fed onto the gravity roller conveyors is also the first to run to the removal side. Among other things, this method is particularly suitable for a fast loading process of trucks or for efficient picking.

We offer two different types of slope roller conveyors:



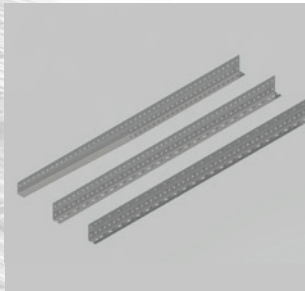
Advantages of gravity roller conveyors

- | | |
|--|---|
| X Productivity enhancement. | X Less manpower needed to transport the pallets. |
| X Connection to WMS possible. | X Reduction of CO ₂ emissions due to lower number of forklift trucks. |
| X Low maintenance and operating costs. | X Increased safety due to reduced forklift traffic. |
| X No energy consumption. | |
| X High cost-effectiveness, ROI (return on investment) in a few years. | |



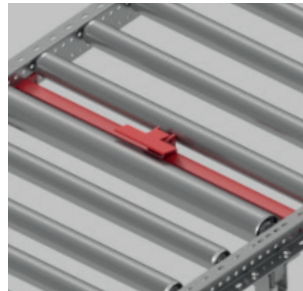
Gravity Roller Conveyors (GRC / PRC) in detail

Special features GRC in detail



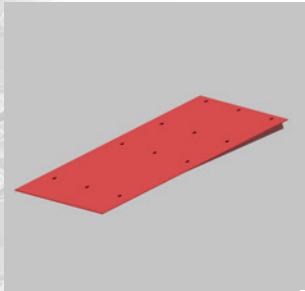
Side profile

- U and L profiles made of high quality 3 mm pregalvanised sheet metal ensure low deflection and high load-bearing capacities.



Back stop device

- Robust and movable back stop device.
- Prevents pallets from being moved into the automatic area or other hazardous areas.



Front ramps

- For the removal of 4-way pallets such as CHEP UK or chemical pallets with a pallet jack.
- Surface powder-coated or galvanised possible.



Collision protection construction

- A robust support structure made of hot-rolled sectional steels protects the gravity conveyors with a higher unloading position from impacts by front stackers.

Special features PRC in detail



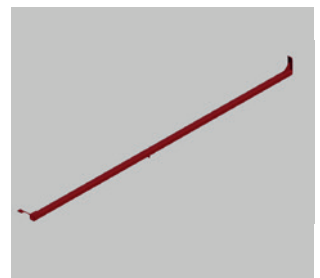
Manual release

- Robust pedal for operating the separator rocking bar.
- After the empty pallet has been removed the next pallet is released and conveyed to the picking position.



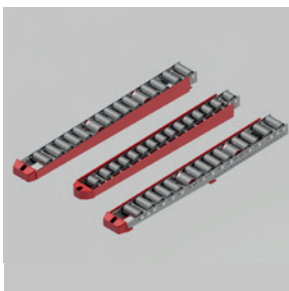
End stop

- Robust construction.
- Provides coverage of edges and other hazardous areas for safe picking.



Separator

- Efficient mechanics made of hot-rolled sectional steels.
- Designed for high durability and high load cycles.



Collision protection

- Heavy collision protection for electric pallet jack.
- Ultra-Heavy collision protection for electric pallet jacks enables uniform load distribution from impacts of the pallet jack.



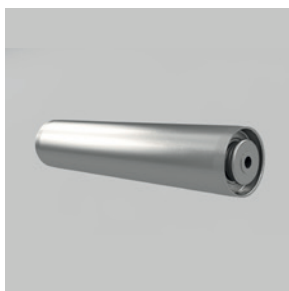
Adjustable feet

- Height-adjustable supporting structure in the range of ± 25 mm to compensate for unevenness of the floor.



Controlled separator

- Selective opening and closing by an external signal.
- No mechanical components (switching plate) in the area of the unloading device.
- Use of very light pallets possible (under 100 kg).



Idler rollers

- Load bearing capacity up to 240 daN.
- Surface protection: pre-galvanised.
- Roller bearing design explicitly for high pallet throughputs and durability.
- Version also for deep-freeze area.



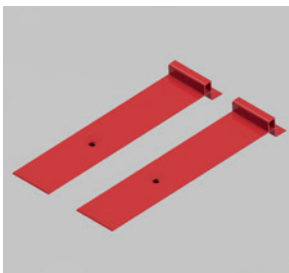
Mechanical separator

- Up to 20 tons and more of accumulation pressure possible.
- Designed for high durability and high load cycles.



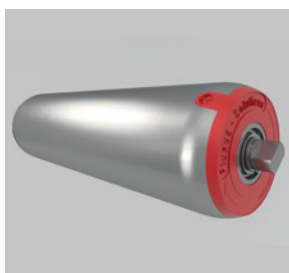
Bracket for inductive sensors

- Safe monitoring of the separation through inductive sensors.



Access ramps

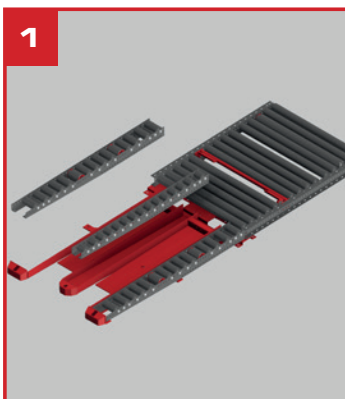
- For more efficient removal of the pallets.
- Integrated mechanical end stop for pallet jacks.



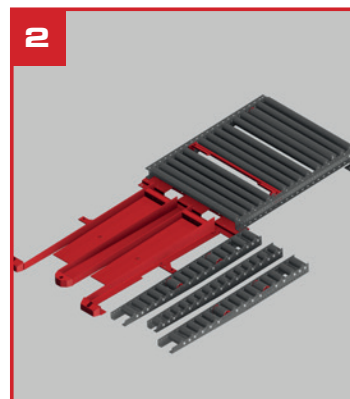
Brake roller

- Speeds up to 0.35 m/s possible.
- Version also for deep-freeze area.
- Minimum weight per pallet down to 50 kg.
- Maximum weight up to 1,200 kg possible.
- Higher pallet weights on request.
- Surface with friction coating or knurled design possible.
- Surface protection: pre-galvanised.

Cleaning of the removal area in 3 steps



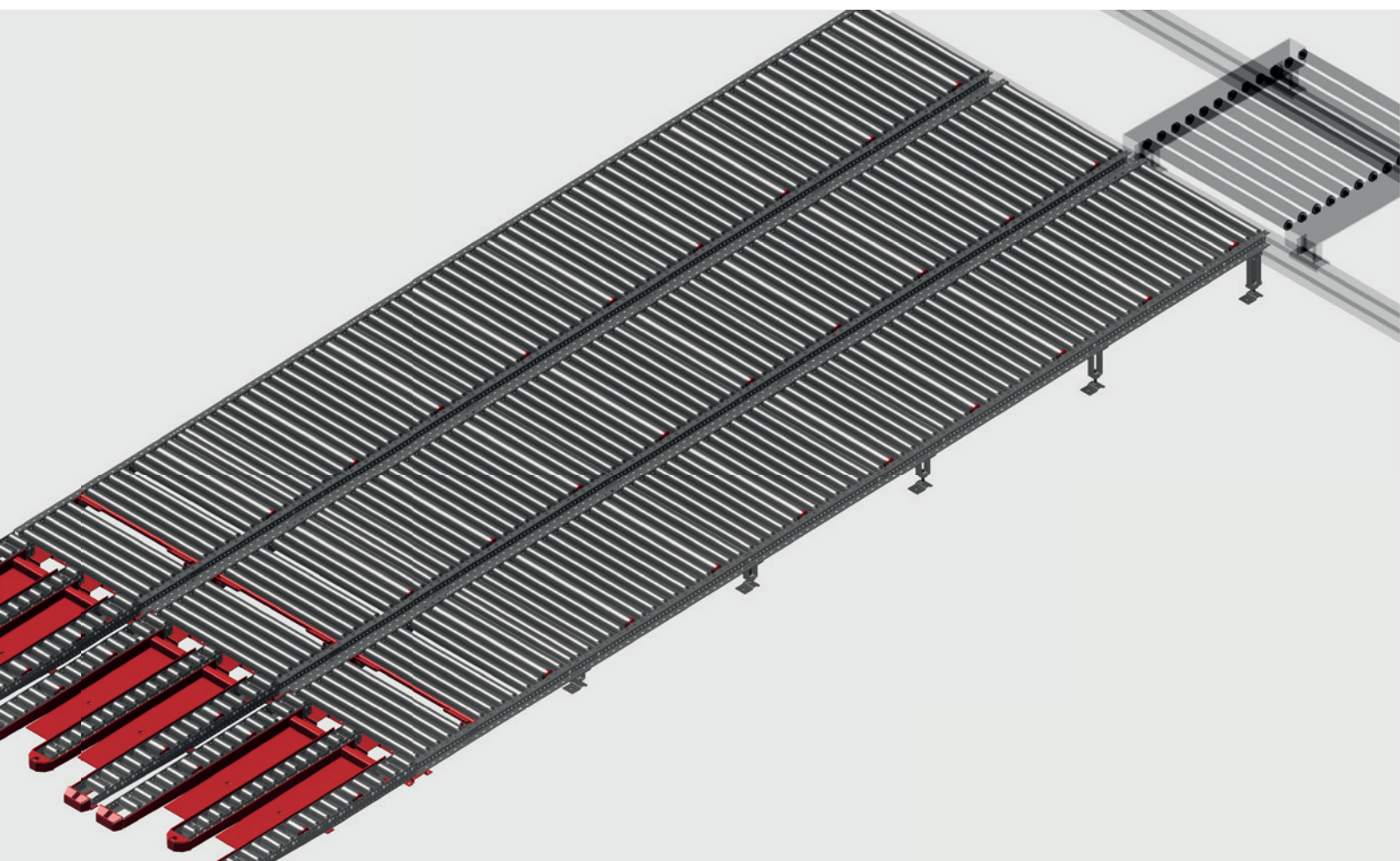
1 Removal of the roller tracks.



2 Cleaning, removal of wood residues, foil etc.



3 Reinstall the roller tracks in the locks provided.



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