



The New Inverted Electrified Monorail System

Flexible floor-based conveyor solutions

The new EISENMANN inverted electrified monorail system ensures that pallets are conveyed just as fast, flexible and smooth as material flow solutions based on overhead conveyor systems. The new inverted electrified monorail system achieves the same performance as electric monorail systems. We are thus offering our customers yet another highly-efficient material flow automation system that supplements the EISENMANN portfolio in the Conveyor Systems sector perfectly and facilitates new applications.

New rail and trolley concept provides flexible solutions

Due to its innovative rail and trolley concept, high throughputs can be achieved with the inverted single-rail system. These are comparable to the performance of intralogistic solutions involving the electric monorail system. The new developed single rail system with extreme torsio-

nal rigidity permits narrow curve radiuses and very flexible and space-saving track layouts. These rails are designed for loads up to 1,250 kg and velocities exceeding 120 m/min.

A main focus of the conveyor system specialists from Böblingen were the trolleys of the new inverted electrified monorail system. The integrated roller conveyor for bearing and conveying the loads is an integral part of the trolley construction. This roller conveyor is purposefully mounted on the trolley directly above the running rail to ensure a low center of gravity of the loads being conveyed.

As usual at EISENMANN, the trolleys are equipped with separate, freely programmable trolley control systems. Frequency-controlled drives permit acceleration and deceleration rates in line with the product and the environment.



The new inverted electrified monorail system at the EISENMANN Conveyor Systems Test Center



An intelligent distance control system ensures that the trolley do not come into contact even in tight curves. One inverted electrified monorail system circuit in a high-bay warehouse pre-storage area can handle more than 400 pallets per hour, i.e. place pallets into storage and take pallets out of storage in one work cycle.

Space-saving and easy to maintain

The flexible track layout, the correspondingly low space requirements and the high throughputs of

the inverted electrified monorail system are of interest especially for the material flow in existing buildings. Up to now, these buildings had to be equipped with floor conveyors instead of electric monorail systems due to the insufficient ceiling height.

In addition, the easily accessible screwed joints provides easy maintenance of the new inverted electrified monorail system. Even preventiv maintenance and service can be performed easy, fast and cost-efficient.

Advantages at a glance

- Low transfer height
- Low space requirements due to tight curve radiuses
- The inverted electrified monorail system is directly floor-mounted
- The new developed special rail with extreme torsional rigidity is designed for service loads up to 1,250 kg and velocities of 120 m/min
- High throughput of more than 400 pallets/h when operating in the high-bay warehouse pre-storage area
- High availability, easy to service and to maintain due to convenient access to all the components
- Integrated roller conveyor
- Facilitates the material flow in existing buildings that had to be equipped with roller conveyors and chain conveyors up to now due to the ceiling height
- Easily expandable by adding trolleys
- Diagnostic stations and repair sections can easily be integrated

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