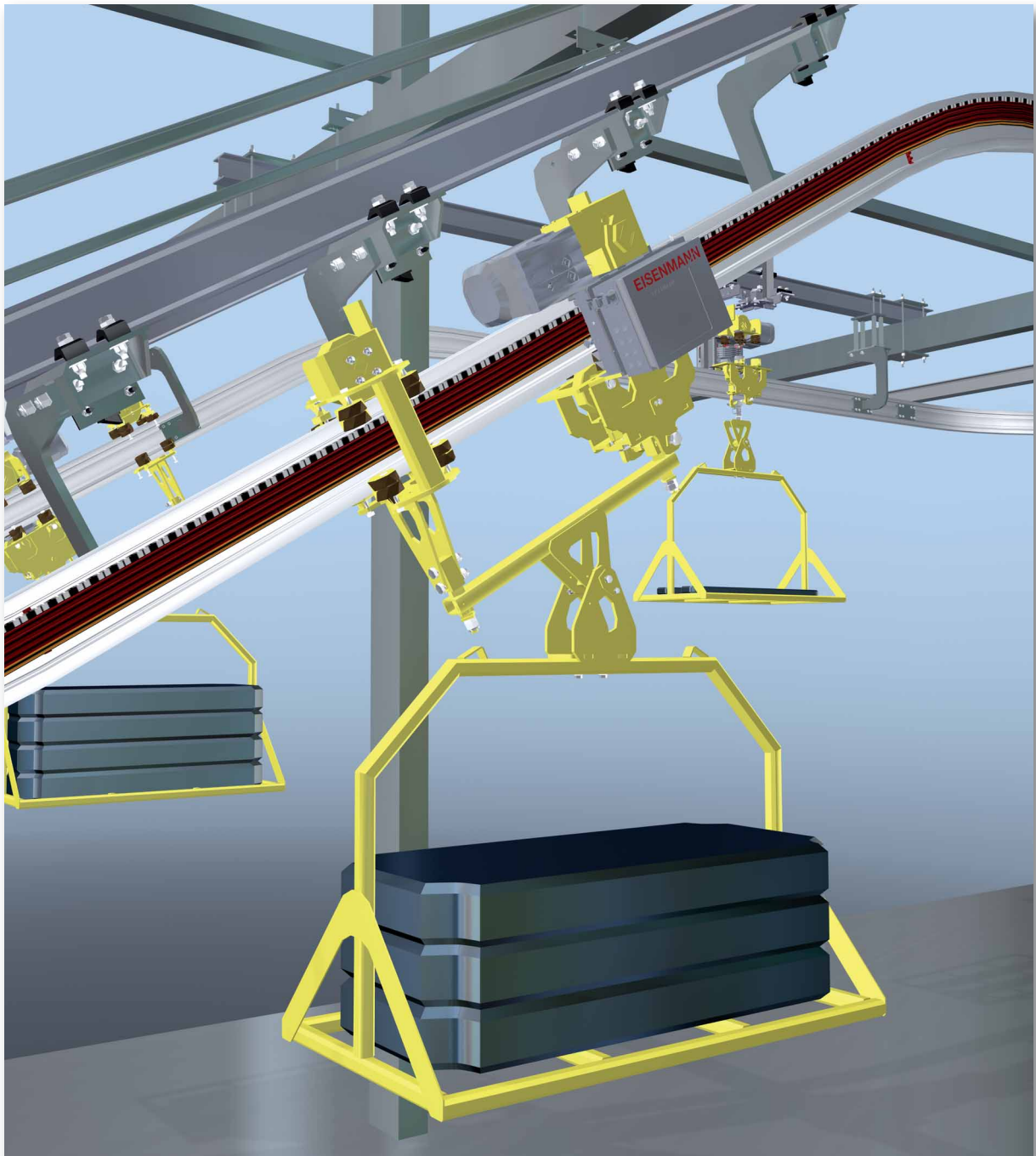


# EISENMANN

New direction for the material flow  
The climbing electric monorail



# The climbing electric monorail

Gone are the days when major in height differences and gradients posed a problem for the people responsible for in-house logistics! With the climbing electric monorail system (EMS) from EISENMANN, gradients of up to 45° can be integrated into the material flow without difficulty and without complexity.

## Flexible routing

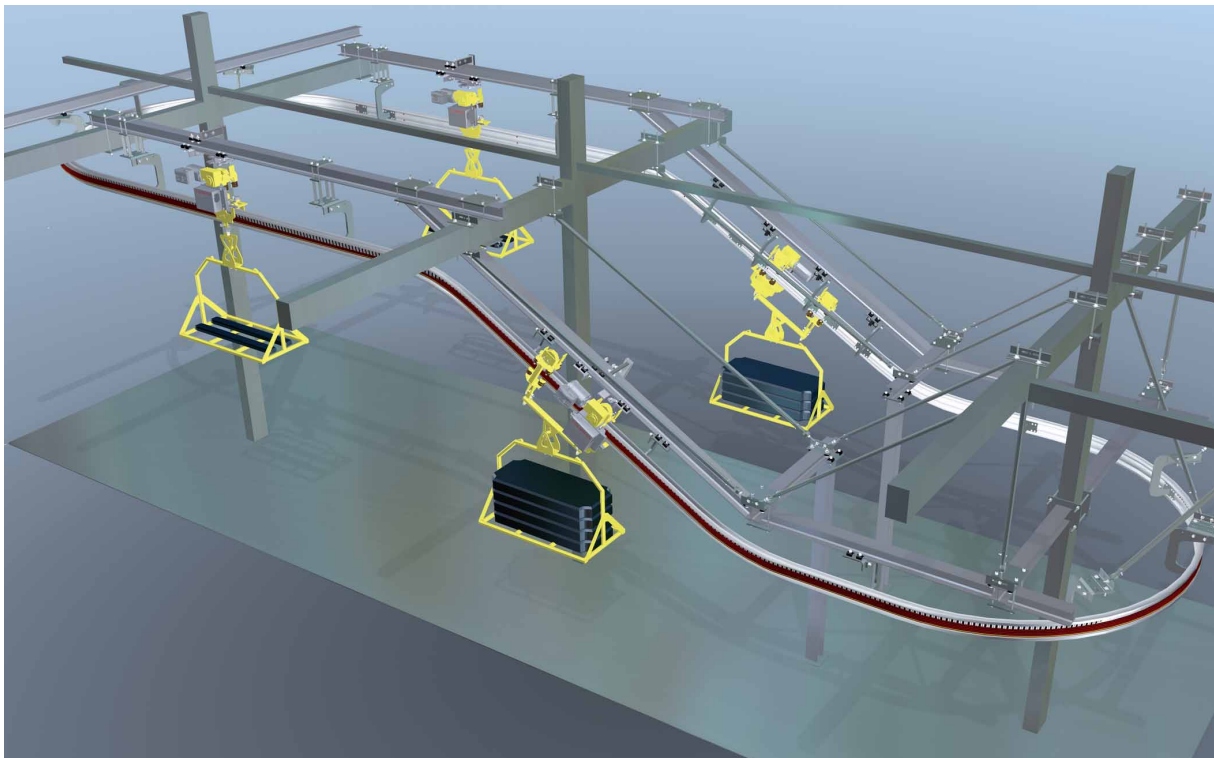
Curves with small radii can now be mastered just as easily as differences in height inside buildings, thanks to the climbing EMS from EISENMANN. Individual in-house material flow solutions are made considerably simpler.

## Lower investment costs

Use of the climbing EMS from EISENMANN reduces investment costs significantly. With the new design of climbing EMS carrier, the required motor power could be reduced and there is no need for auxiliary transfer equipment. Even the costly investment in lifting stations is now unnecessary, eliminating the associated negative effect on through-put.

## Advantages of the climbing EMS at a glance:

- ▶ Throughput boosted >50% in comparison to a system solution with lifting stations
- ▶ Lower investment costs: the cost of one lifting station corresponds to that of five climbing EMS trolleys
- ▶ Lower operating costs: the operating costs of one lifting station correspond to those of 12 climbing EMS trolleys
- ▶ Higher availability and lower maintenance costs in comparison to lifting stations



# New direction for the material flow

## Gradients are overcome all-automatically

Gradients from 0° up to 45° are no problem for the climbing EMS from EISENMANN. The general rule applies: With higher gradient, lower payload can be carried. The EMS trolleys used here do not require any external climbing aids.

In order to climb without assistance, the EMS trolleys are equipped with a pressure unit to increase the friction on the rail, holding the trolley on the incline.

Depending on the weight of the load, mono-trolleys or – for payloads of more than 100 kg – duplex trolleys with front and rear trolley can be used. All trolleys feature the tried-and-tested EISENMANN technology, including freely programmable trolley control with parameterizable distance sensor and continuous position sensing.

The trolleys travel at a speed of 60 m/min on level sections and at 40 m/min on uphill and downhill gradients.



**Mono-trolleys are perfectly capable of automatically mastering gradients when carrying payloads of less than 100 kg.**



**On duplex trolleys with front and rear trolley, the pressure unit is mounted on the front trolley.**

## Load in Balance

The carriers must be movably suspended so that the load remains horizontal even when traveling up or downhill.

In the case of duplex trolleys with front and rear trolley, a load bar is normally used for this purpose. Its design can vary, depending on the load being transported. On mono-trolleys, the load can usually be suspended directly or via a short load bar.

# EISENMANN

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