

ZIMM drive technology for intralogistics – Optimize processes flexibly

A use case from intralogistics with ZIMM

ZIMM – drive technology for stable material flows

Material flows in intralogistics must be continuously monitored, adjusted and kept efficient. Stable transfers, repeatable positions and robust mechanics are crucial – so cycle processes run reliably and coordination effort remains low.

ZIMM provides a modular system kit for this: electromechanical actuators and screw jacks generate precise linear motion – including matching parts – for lifting, positioning and adjusting loads in conveyor systems and system modules. ZK bevel gearboxes handle power transmission and 90° redirection when drives need to be arranged compactly and integrated cleanly.



Key advantages for your application



+ Electromechanical actuators

Excellent energy efficiency and low maintenance compared to hydraulic solutions: our electromechanical actuators move and position loads from 2.5 t to 20 t precisely (depending on version and system design).

The ZIMM modular system provides perfectly matching parts.

+ Screw jacks

Optimize your machines and systems with ZIMM screw jacks. We offer tested and proven solutions for efficient load movement from 250 kg to 100 t (depending on series and system design; per gearbox or within the system).



+ ZK bevel gearboxes

Benefit from long-lasting performance and minimal maintenance: the ZK Series impresses with a robust grey cast-iron housing, ratios from 1:1 to 3:1 and proven lubrication – for reliable operation even under the toughest conditions.

Extract from our industry expertise

Adjust conveyor belts | Stabilise transfers reliably

In intralogistics, conveyor belts often need to be readjusted – for clean transfers and stable belt tracking. ZIMM provides electromechanical actuators as a robust basis: precise adjustment and positioning in a compact installation space. This allows belt height, side guides and angle of inclination to be set repeatably – even with changing loads and cycle times.



Benefits

Repeatable settings
for stable transfers and belt tracking

High stiffness and
positioning accuracy under load

Compact integration with clear
interfaces to the control system

Operating principle

Rotary motion → linear motion
via electromechanical actuators

Synchronisation of multiple
actuators possible to prevent jamming

Design based on stroke, load
and duty cycle (ED)
for stable cycle processes

Application scenarios

Height adjustment of conveyor belts
at transfer stations

Readjustment of side guides
for stable product guidance

Positioning of transfer and diverter
modules within the conveyor layout

Extract from our industry expertise

AGV top modules | Automate transfers reliably

AGVs enable flexible material flows – the critical point is the transfer at stations. ZIMM supplies screw jack systems as a robust basis for top modules: precise lifting and positioning in a compact installation space. This enables repeatable load pick-up, centring and locking at transfer stations.



Benefits

Repeatable transfers through defined lifting positions

High stiffness and load capacity for stable processes

System design as a multiple-screw solution possible e.g. 4-screw systems

Operating principle

Rotary motion → linear motion via screw jacks

Synchronous lifting in multiple-screw systems to prevent jamming

Design based on accuracy and efficiency (depending on requirements, also with DC motors)

Application scenarios

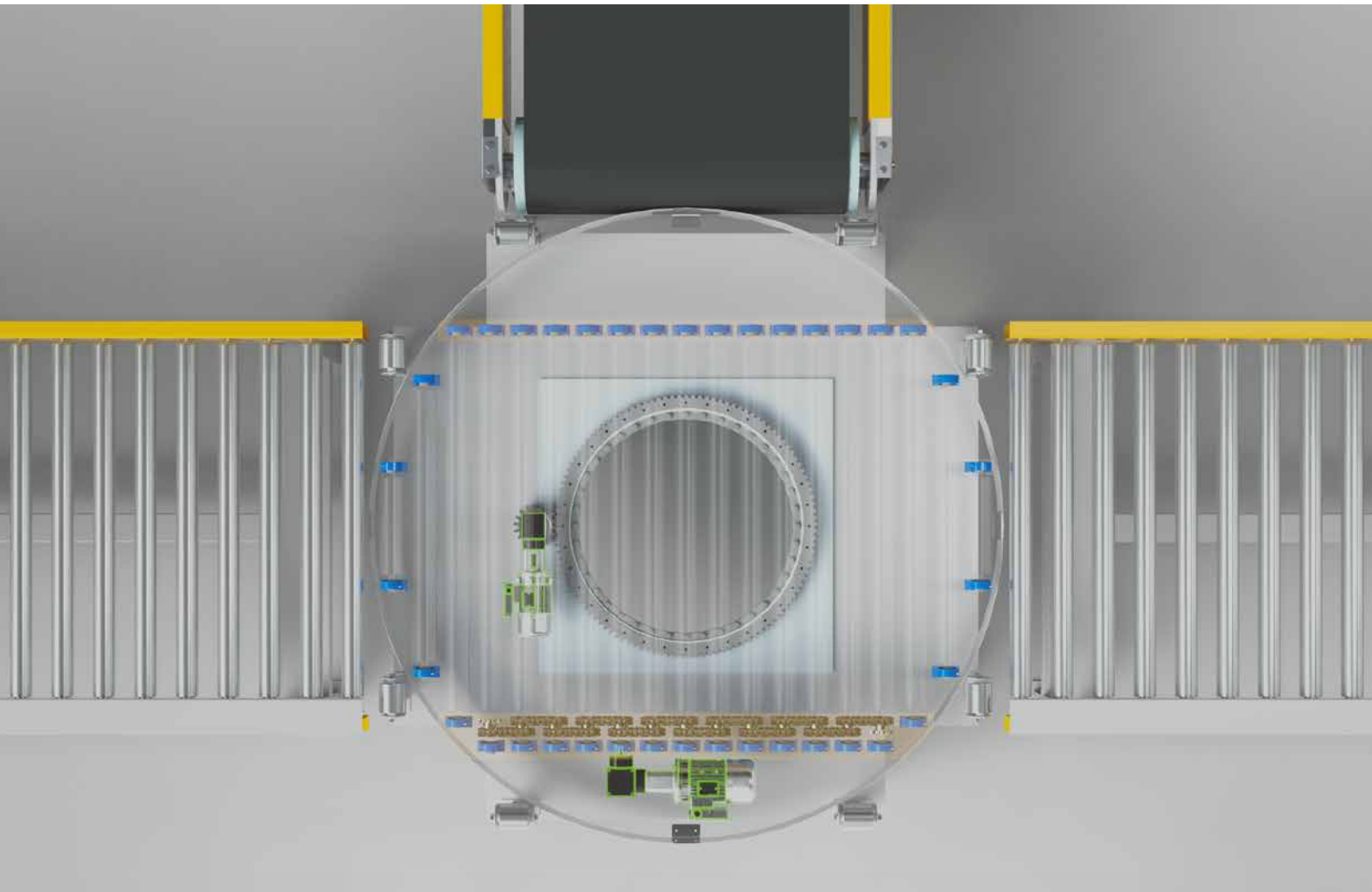
Transfer stations for conveyor systems & transfer modules

Lifting/positioning units for load carriers

Centring & locking in the top module

Turntables | Redirect cartons reliably

In carton conveyor lines, a change of direction is a cycle-critical point: only when the turntable reaches its position repeatably do transfer and onward transport remain stable. ZIMM supports turntable modules with ZK bevel gearboxes as a compact drive stage for torque transmission and 90° redirection. This aligns cartons in a defined way at line transitions and transfers them safely to the next conveyor section.



Benefits

Repeatable rotary positions
for clean carton transfers

Compact drive thanks to integrated
90° redirection

Robust torque transmission
for stable cycle processes

Operating principle

Motor → ZK: transmit torque,
redirect the drive direction by 90°

Ratio matched to cycle time
and carton weight (speed/torque)

End positions define the transfer
to the downstream conveyor line

Application scenarios

90° direction changes in
carton conveyor lines

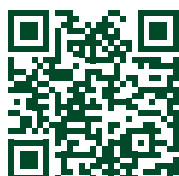
Transfers to sorting/diverting modules
with defined alignment

Alignment upstream of scanner,
scale or labelling

Are you planning an intralogistics module or would you like to stabilise transfers?

Enquire now

Send us a brief description of the application, load, stroke/adjustment travel, cycle or duty cycle (ED), as well as the installation situation – we will support you in selecting electromechanical actuators, screw jacks or ZK bevel gearboxes.



Let us optimise your intralogistics processes together. Contact ZIMM – and benefit from proven technology and first-class service.

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