TWIN TRACK PALLET SYSTEM
FOR SMART PRODUCTION

AUTOMOTIVE

FLEXLINK®

a **coesia** company

BOOST THROUGHPUT, GO GREEN AND EMBRACE THE FUTURE

Boost throughput and available production time with the new twin track pallet system from FlexLink. The conveyor platform for heavy loads offers increased production efficiency and trouble-free operations. Go green by cutting power and air consumption – all functions are electrical. This cutting-edge conveyor system offers a verified, low TCO and is designed for smart production!

YOUR PRODUCTION BENEFITS

• Smart line architecture

Simulated, monitored and digitalized system design with unique predictive maintenance.

• Increased production

Gain up to 10% more production time at cycle times of one minute.

• Improved availability

Long MTBF (>2 years), short MTTR on functions (<10 min).

• Reduced energy consumption

All functions are electrical and excessive running time is eliminated.

• Decreased time to market

Short lead time of standardized conveyor modules including controls. Reduced application programming needed.

FLEXLINK

DESIGNING THE
SMART PRODUCTION LINE

As System Architects, FlexLink supports you with the line design and continuous optimization through its entire lifecycle.

We start by conducting a feasibility study and acquire data from existing lines to create a simulation and iteration analysis. With the results from the study and our extensive experience, we can define the optimal solution for your needs. Together with electrical functions and a wide range of standardized software, our new twin track conveyor system provides the tools to create a smart production flow.

We take ownership of all interfaces between pallet flow, machines and processes to ensure that the overall line effectiveness is taken into consideration. As a bonus you get a digital twin of the line for future process changes, expansion or introduction of new products.

Our project management team, advanced engineering and line monitoring tools enable cost efficient and trouble free commissioning. We collect real time data from the line and electrical functions for diagnostics used for optimization and increase your OEE.
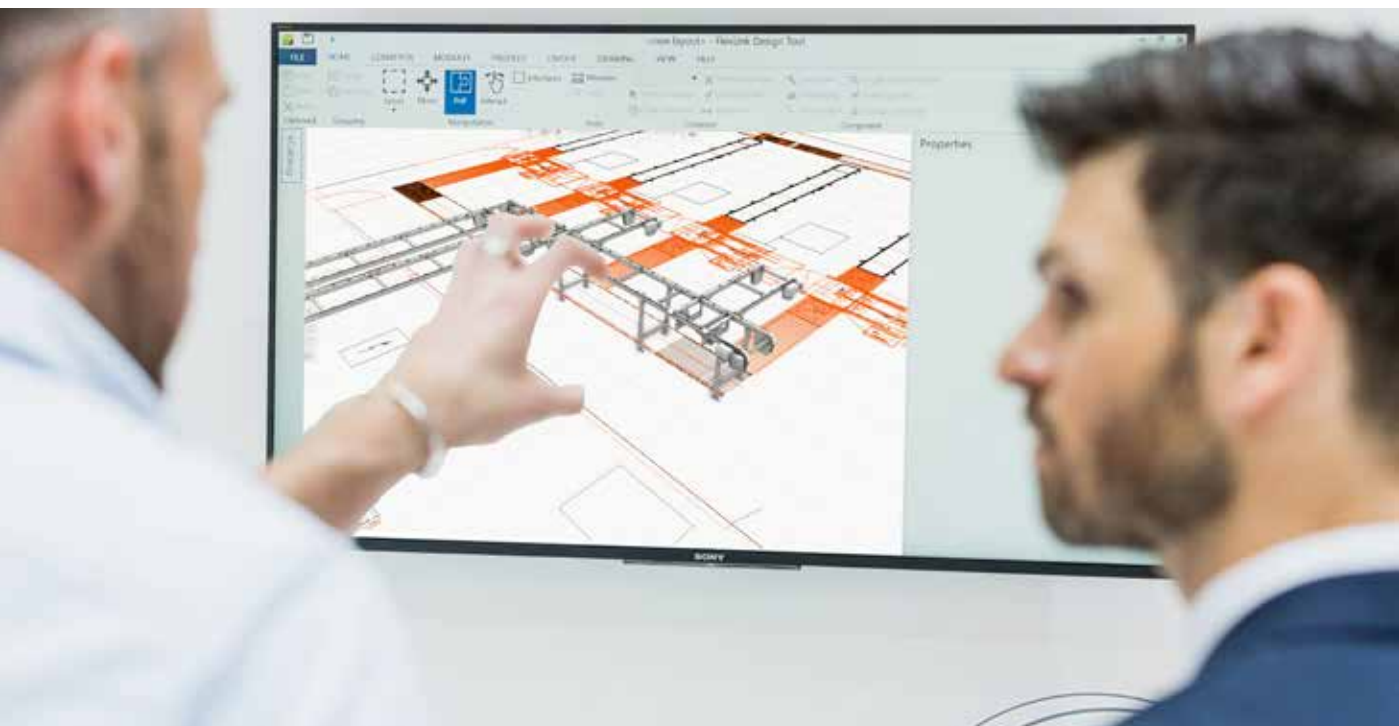
Configuring the pallet route is quick and with track-and-trace we collect all data related to the flow, processes and products. The production is monitored in real-time to identify deviations from the digital twin and optimum production setup. Our visualization and configuration tools are intuitive and don't require advanced programming.

Using smart production line architecture you reduce downtime for line changes and new processes - allowing for troubleshooting and optimization to be done virtually in the simulation and digital twin.
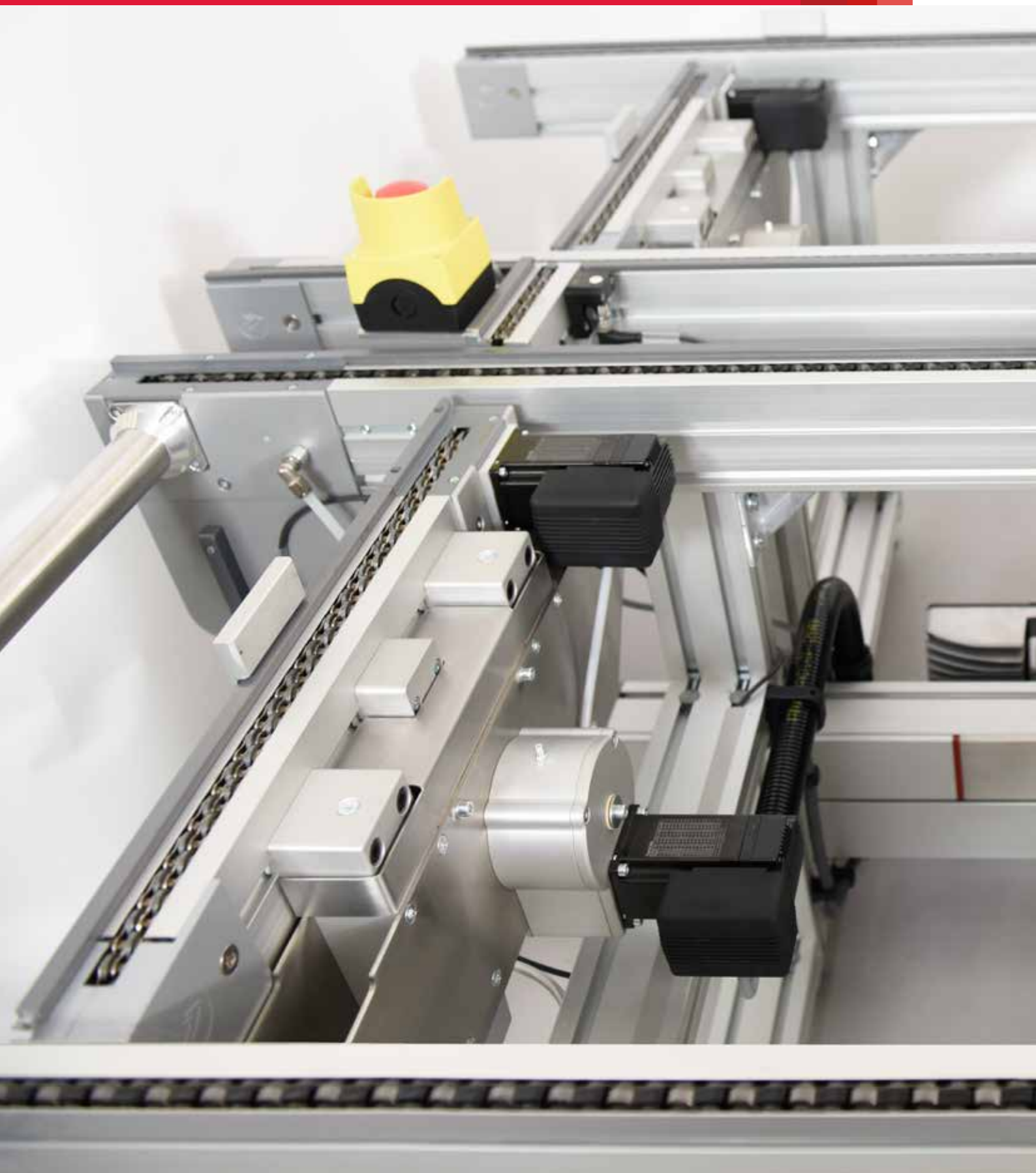
The new system also increases available production time by minimizing unplanned stops thanks to the unique predictive maintenance feature. The conveyor's functional design not only enables a single minute exchange of broken parts, but also an uncomplicated de-commissioning when needed.

Improve your production performance indicator and your total line OEE. The new conveyor system allows you to gain up to 10% more production time at cycle times of one minute. The FlexLink OEE tool also helps you to keep track of your line efficiency, stay ahead of unplanned downtime and identify line improvements.

Dual conveyor speed section

The speed booster section doubles the speed when needed and reduces the pallet exchange time by up to 50% (6s at 5m/min). The section eliminates accumulation needs and reduces both stress on wear parts as well as noise level.

BENEFITS

- Increased available production time and output
- Energy efficient
- Reduced maintenance and noise

Data acquisition

Important line performance data is accessible in real-time. Bottlenecks and root causes are identified through utilization reports, trend analyses and comparisons.

BENEFITS

- Increased line and machine OEE
- Decreased unplanned downtime
- Continuous line efficiency improvements
- Emulation of line in virtual twin

IMPROVED AVAILABILITY AND TROUBLE-FREE OWNERSHIP

Quick design and proven, simulated efficiency

Experience your line in virtual reality. The FlexLink Design Tool permits quick design and line simulation, helping you to identify bottlenecks and verify new line configurations and OEE. The tool reduces engineering errors, saves time and allows quick and trouble-free order handling.

BENEFITS

- Reduced engineering time by up to 40%
- Quick commissioning
- Verified system capacity
- Reduced investment risk

Standardized line control, routing and track & trace

The system is delivered in pre-assembled modules complete with FlexLink's control logics. The line controller manages routing and track-and-trace while the device controllers manage sensors, functions and smart motors. The FlexLink Controls ecosystem ensures a smart, easy-to-configure and install solution for single piece flow applications.

BENEFITS

- Increased availability
- Reliable, trouble-free operations
- Short time-to-market
- Architecture supporting IIoT and digitalization
- Reduced programming needed
- Plug-and-play and easy to reconfigure

Energy smart

Stops, locating stations and transfers are all electrical. This allows a reduction by 50% of the function's energy consumptions. Furthermore, the electrical devices offer accessibility to data, and reduced noise (<68dBA). The smart motors only run when needed and thanks to the low friction conveyor design, you can now use longer conveyors per drive (50% reduction of torque).

BENEFITS

- Low operating cost
- Improved working environment
- Data availability for preventive maintenance and OEE metrics

Robust and service friendly

The new conveyor has a Mean Time Between Failures (MTBF) of 12,000 hours (2 years with 3 shifts) and all functions are plug-and-play and mounted in fixed positions allowing a single digit Mean Time To Repair (MTTR). The smart motors permit predictive maintenance. Wear is also considerably reduced thanks to the low friction steel roller chain, smart motors and dual conveyor speed zone.

BENEFITS

- Minimizes the need for maintenance
- Short downtime
- Predictive maintenance
- Low operating cost

*Easy to configure pallet route
and review OEE data.*

*All functions are IIoT-ready
and electrical giving reduced
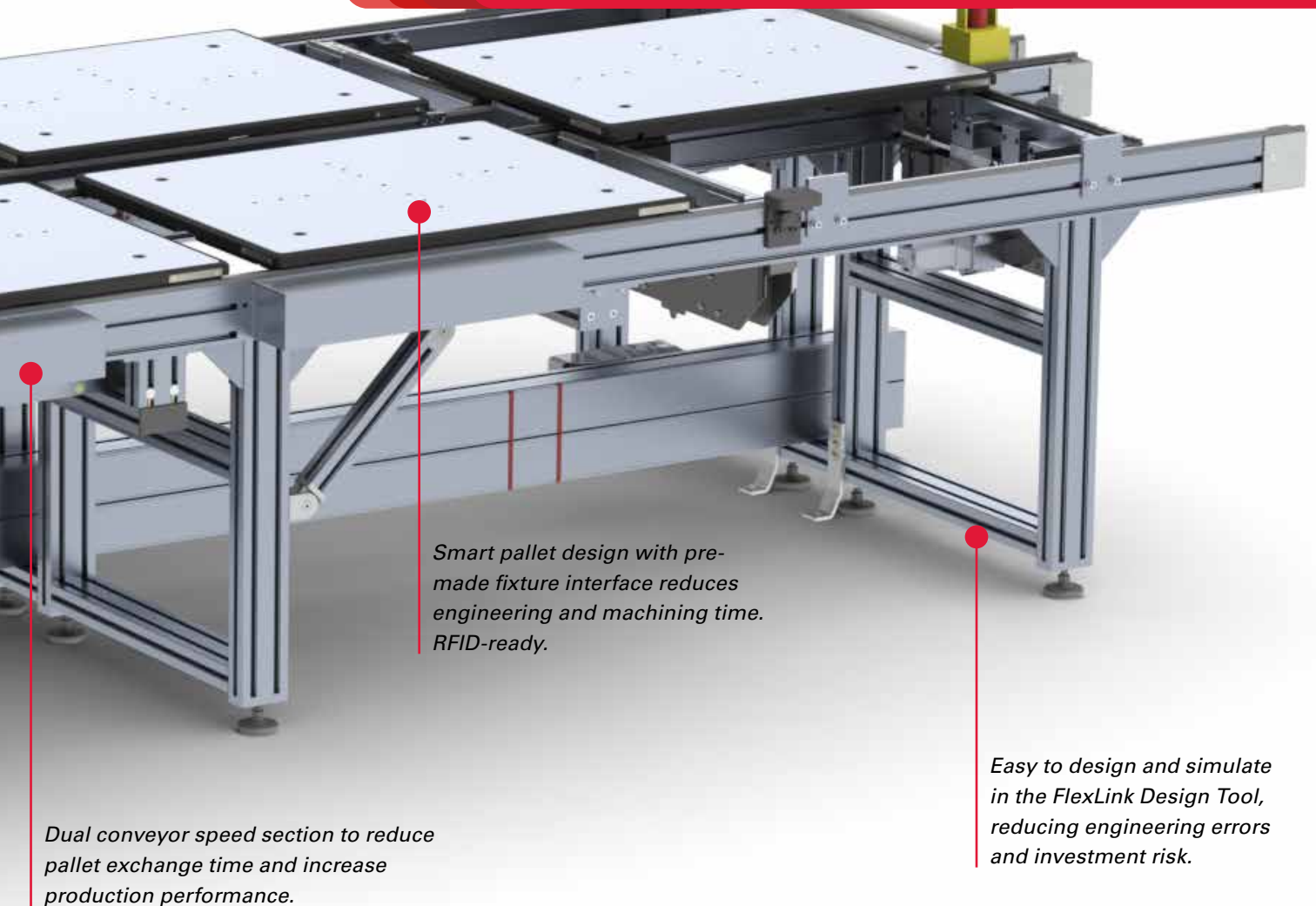operating cost and improved data
acquisition.*

*Standardized modules with pre-
defined control logics reduce
programming, and enable
true plug-and-play and easy
integration.*

*Robust and service friendly, short
MTTR and predictive maintenance
for reduced downtime.*
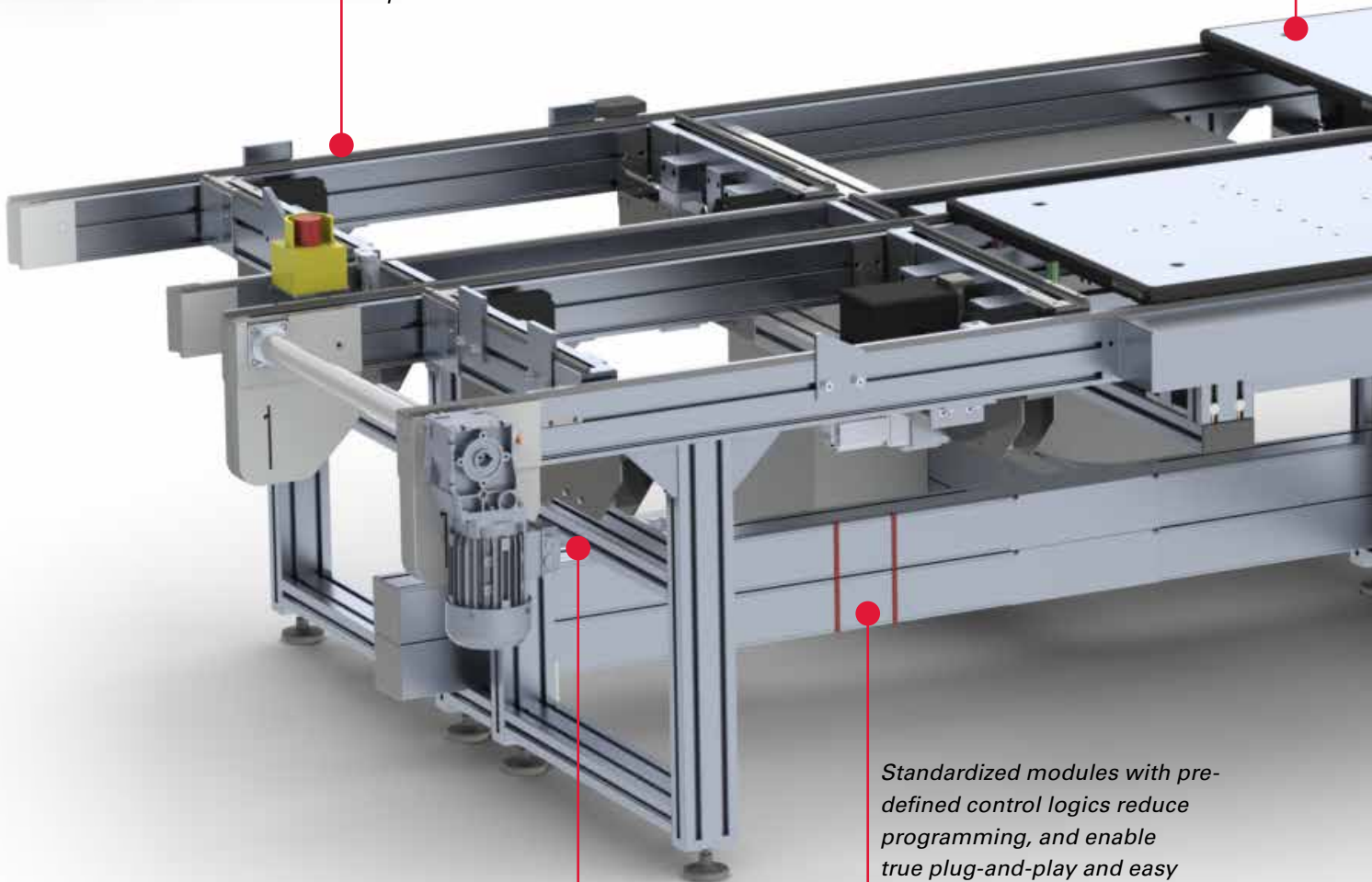
This new system increases available production time thanks to reduced pallet exchange time in the dual conveyor speed sections. The system is designed for single digit MTTR and low friction accumulation that reduces wear, downtime and total cost of ownership. The new twin track conveyor for heavy loads is fully digitalized and prepared for IIoT and traceability requirements. The standardized modules with pre-defined control logics shorten design and installation time, reducing time to market.

Smart pallet design with pre-made fixture interface reduces engineering and machining time. RFID-ready.

Dual conveyor speed section to reduce pallet exchange time and increase production performance.

Easy to design and simulate in the FlexLink Design Tool, reducing engineering errors and investment risk.

Key technical data

- Speed: 15 m/min
- Pallet sizes: up to 1040×1040 mm
- Max. pallet load: 200 kg
- Max. accumulating load: 1000 kg
- Max. conveyor length: 10 m

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98
OPERATING UNITS
58 of which are
production plants

32
COUNTRIES

6,800+
EMPLOYEES

18
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