

# Best-in-class motion performance for your packaging machines

Tailored to your  
application



## Motion control for your packaging machines

The requirements in the packaging industry are increasing: greater product diversity, smaller batch sizes, and higher cycle rates define everyday operations. Machines must reliably handle this dynamic environment and deliver precise performance – even when formats and materials change frequently. Lenze supports machine builders with motion control solutions that manage complex motion tasks and enable modular machine concepts.

## Modular & flexible packaging machines

Today's packaging materials range from thin films to cartons and delicate products. Every application requires the right, highly precise motion profile – from simple positioning tasks to highly dynamic robotics.

With a scalable motion control portfolio that includes controllers, servo drives, and drive technology, Lenze provides the foundation for high-performance packaging machines.

## Sustainable drive and automation technology

Rising energy costs, stricter regulations, and increasing demand for sustainability are rapidly reshaping the packaging industry. What's needed are machines that conserve resources while delivering maximum efficiency. Lenze supports this transformation with energy-optimized drive solutions – from IE5/IE6 drive packages with sensorless positioning to regenerative inverters and precise temperature control for sensitive materials.

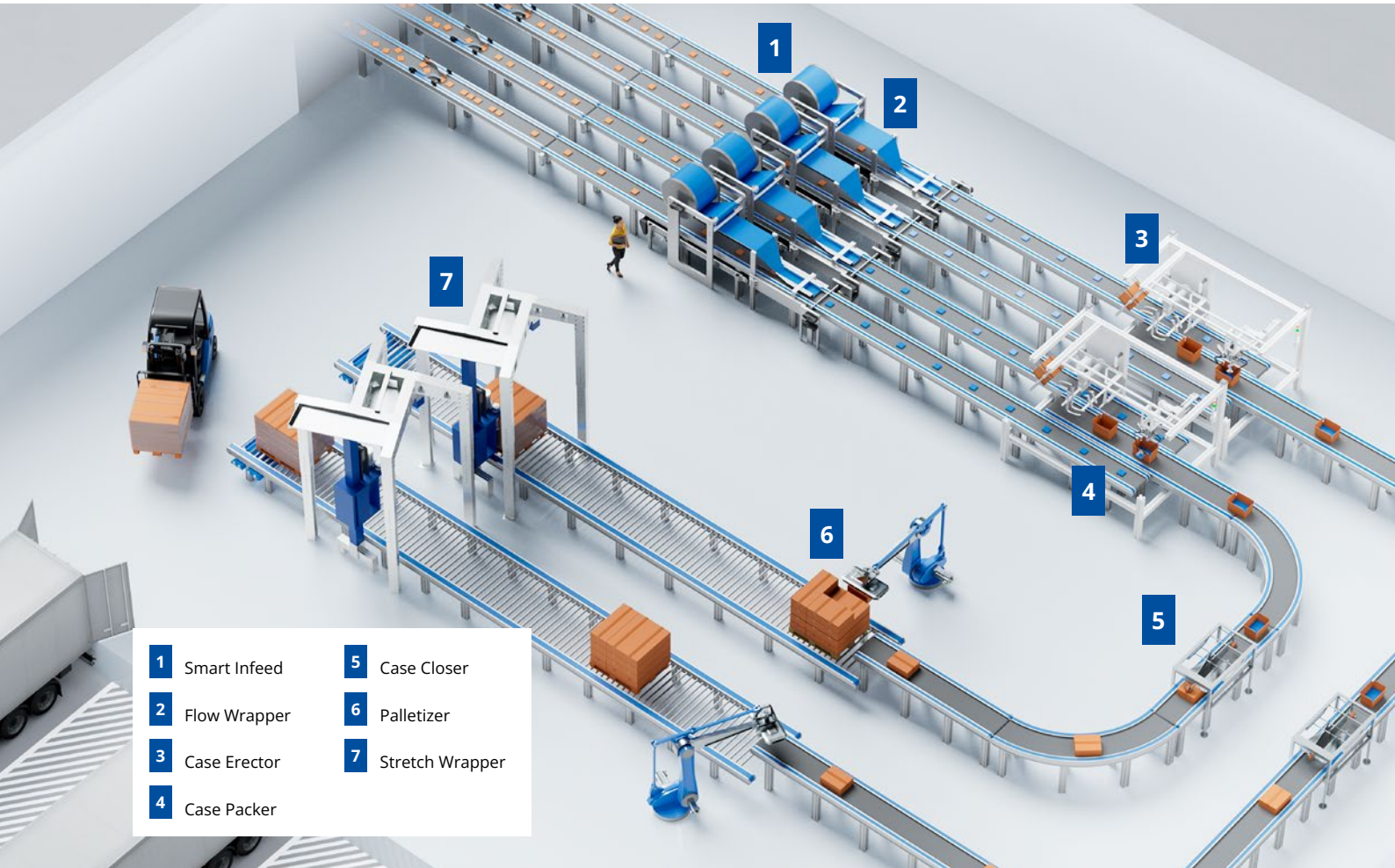
## Precision packaging systems

Packaging technology brings together a wide variety of materials and the highest demands for precision. To reliably process films, cartons, or sensitive products, machines require flexible motion control – from simple axis positioning to high-speed robotics. Lenze delivers a broad motion control portfolio and electromechanical solutions that enable scalable, high-performance packaging machines.



## From primary packaging through palletizing: Tailored solutions for every application

With end-to-end servo technology, your machine achieves maximum precision in packaging. Energy-efficient drive technology supports sustainable processes and, thanks to open interfaces, integrates seamlessly into existing lines. At the same time, you benefit from scalable machine concepts and significantly reduced time to market enabled by the modular Lenze FAST application software modules.



### Motion control for every application

Lenze offers a well-designed and scalable motion control portfolio for the wide range of tasks in the packaging industry. It supports precise motion sequences in machines such as form-fill-seal systems, case erectors, end-of-line palletizers, or delta robots – regardless of whether simple axis movements or highly dynamic

processes are required. Lenze solutions can be flexibly combined, expanded in a modular way, and tailored to industry-specific requirements. This creates the foundation for efficient processes, stable cycle times, and reliable performance.



FFS – Form-Fill-Seal machines



Case erector



End-of-line palletizers



Delta robots

## Form-fill-seal machines: Maximum performance with minimal energy consumption

The Lenze solution for form-fill-seal machines combines intelligent drives, precise motion control, and modular, scalable technology. The result is high-performance, material-efficient packaging processes – even when processing thin and sensitive films.

- **Modular and scalable:** Software and hardware can be flexibly adapted to any requirement. The Lenze winder solution compensates for friction and acceleration effects, prevents material breakage and scrap, and enables the use of tension-sensitive films – without additional tension sensors.
- **Intelligent drives:** The machine determines the control parameters directly from the process. Time-consuming expert testing is no longer required.
- **Automatic adaptation:** Changes in packaging material or ambient humidity are automatically compensated.



- **“Cross Cutter” technology module:** Calculates the cam profile for the synchronous movement of the cross-sealing roller and synchronizes it with the master axis – ensuring reliable sealing processes without empty packages or products caught between the sealing jaws.

## Our bet: The fastest delta picker with Lenze

Delta robots enable fast and highly precise pick-and-place processes. With Lenze’s FAST Robotics modules – including a low-code template, digital twin, and comprehensive simulation – such applications can be developed efficiently and optimized reliably.

- **Parameterization instead of programming:** Lenze FAST Application Software enables commissioning without in-depth robotics expertise.
- **FAST Robotics template:** Predefined low-code robotics template for fast, flexible automation with up to 80 % less programming effort. The digital twin supports testing, optimization, and validation.
- **Comprehensive simulation:** Takes all application-relevant parameters into account and enables a precise prediction of overall system performance.
- **Open architecture:** Ensures independence and allows flexible integration of in-house know-how.



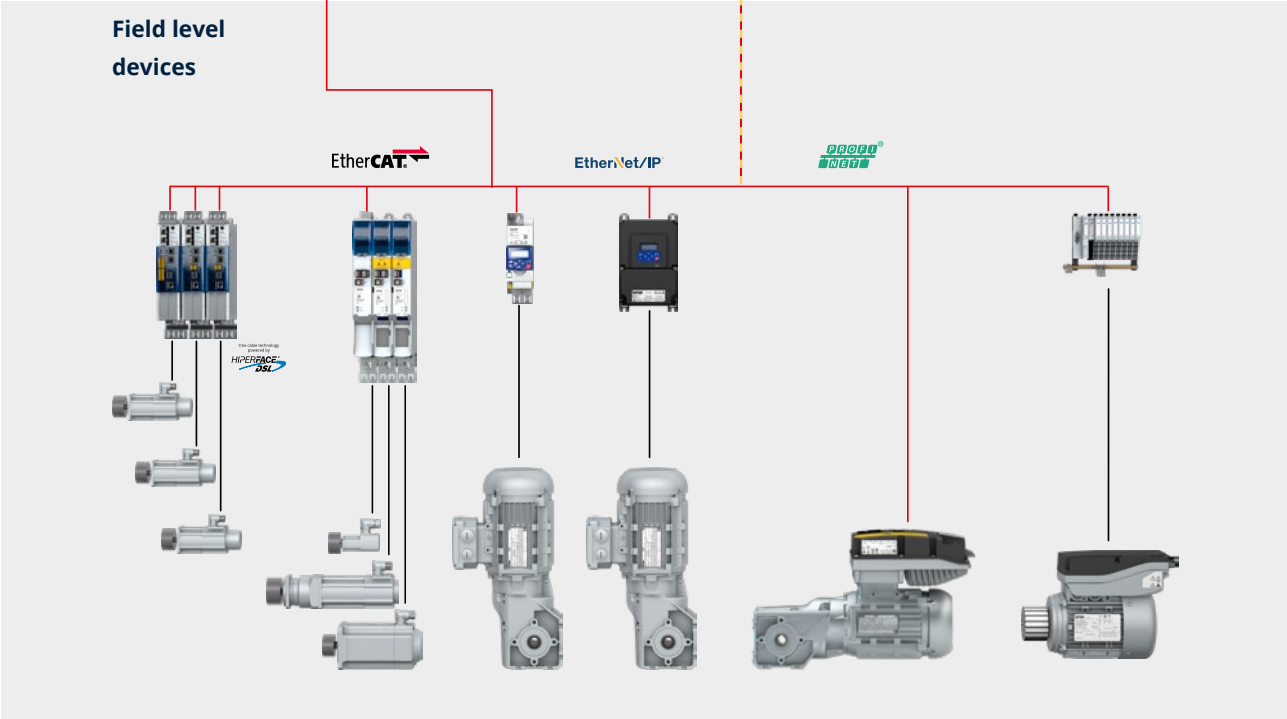
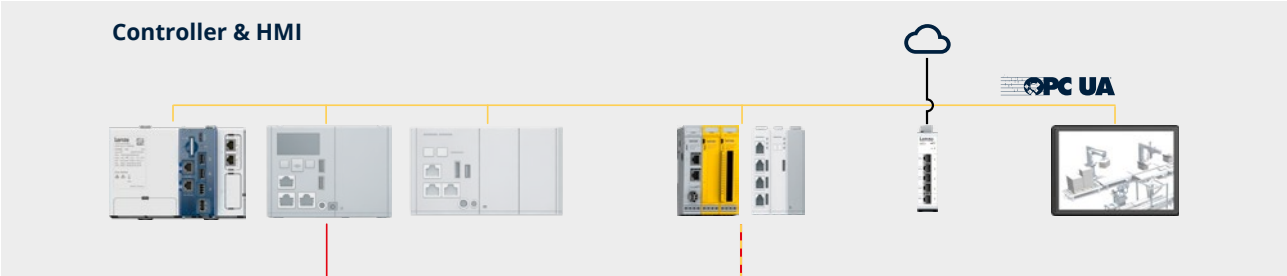
- **Integrated control:** Combines logic, motion, and robotics in a single controller – reducing costs and engineering effort while simplifying the connection of peripherals.

### Open drive and automation portfolio

Lenze enables maximum flexibility in automation: our open and scalable system architectures support a wide range of control topologies – from centralized to decentralized approaches. Open interfaces simplify integration into different control environments and reduce engineering effort. This allows machines to be quickly adapted to new requirements and efficiently integrated into any architecture.

**Lenze Engineering Suite**  
Sizing & selection tools  
Engineering tools

**Lenze FAST Application Software**  
Logic | Motion



Open to integration of ...

3<sup>rd</sup>-party tools, apps, hardware & services

Safety & security features