



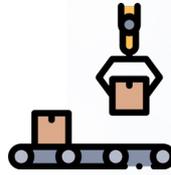
Packaging



Tech solutions for automations in the packaging industry

MECVEL SRL

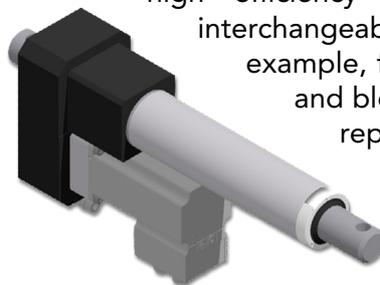
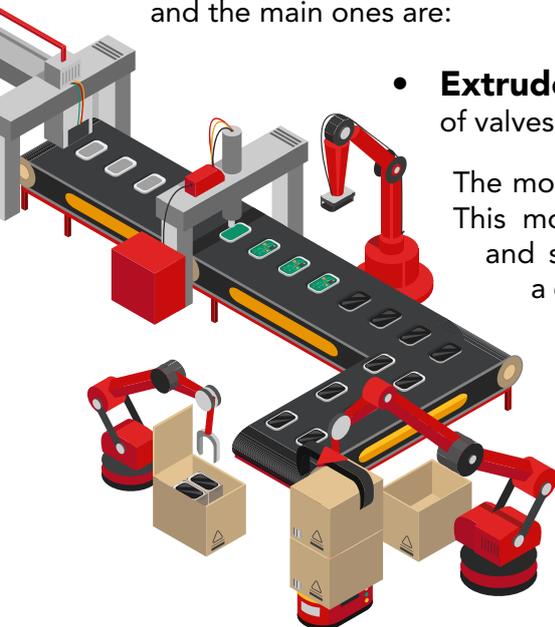
Since 1987, MecVel has played a key-role in the automation field, and its core business is the design and production of electric linear actuators. These devices transform the rotatory motion of a motor into a push or pull movement for loads up to 20 tons, and they perfectly meet the packaging industry needs, as it requires high-performing products while using an electric and eco-sustainable system, really versatile. In particular, this flexibility generates from the customization service of the company able to configure each electric linear actuator according to the technical specifications of the application.


LINEAR MOTION FOR INDUSTRIAL AUTOMATION - THE RIGHT ACTUATOR FOR THE RIGHT APPLICATION

Along a production line, from the processing of the raw product to the packaging of the finished one, there are several stations that electric linear actuators can help automate, and the main ones are:

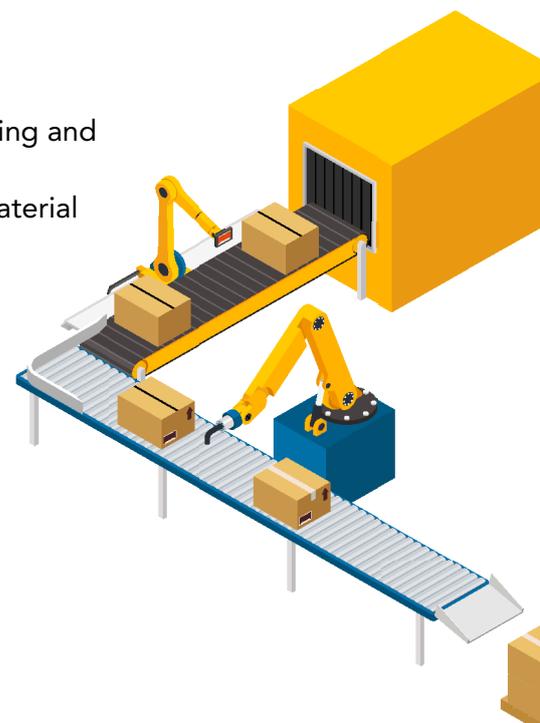
- **Extruders and blow moulding or injection machines:** opening/closing of valves or doors in dosing systems, where the material or air flows through.

The most suitable actuator family for this kind of application is the **AM series**. This models of electric linear actuator is suitable with medium-high loads and speed (15000 N and 150 mm/s max.) without renouncing to motion accuracy and complete control, as it offers the possibility to mount high efficiency servo motors, providing systems interchangeable with pneumatic cylinders. For example, for the positioning of motorized arms and blow moulding/injection devices, where repetitive but precise movements are required, as well as high speed.



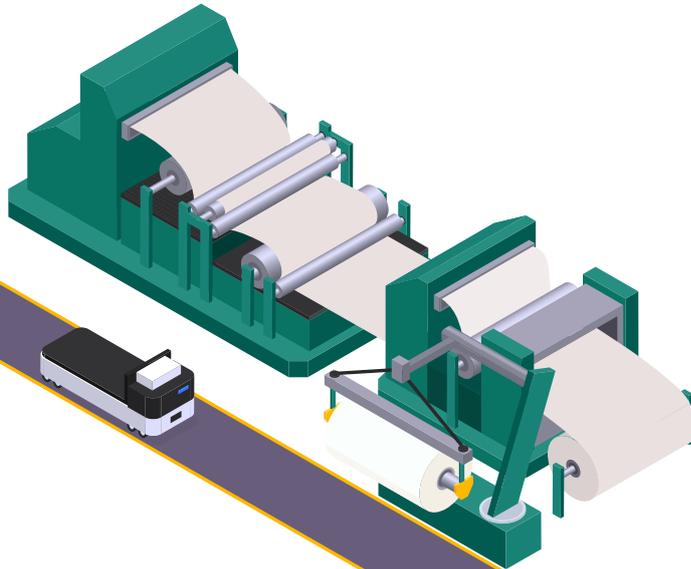
- **Diverters and guiding systems:** handling of the material direction on the conveyor belt during diverting and packaging phases.
- **End of line:** loading/unloading of baskets with finished or raw material through tilt movements.

The most suitable actuator for this kind of application is the **ALI4-F**: the different combinations available make it a real passe-partout. With its 10000 N of force and 100 mm/s as max speed, it can match with diverters, guiding systems, end of line solutions and machines requiring to automate the format changeover.

**ALI4**

Max load	10 000 N
Max speed	100 mm/s
Motor type	AC/DC

- **Automated format changeover:** height regulation of rollers or conveyor belts according to the kind of product or packaging, but also adjustment of the reel position according to the tissue, plastic or paper line, to keep a constant distance despite the continuous variation of the reel volume depending on the process in progress (winding or unrolling)
- **Machines for the plastic film application:** control of thickness and cut of the plastic film during the packaging of the finished product



ALI2

Max load	2 500 N
Max speed	110 mm/s
Motor type	DC



The most suitable actuators for this kind of application are the ALI2 and ALI2-DS (version with double screw): these models are perfect to handle the lift of the AGV loading platform and its direction through the steering control, as they can be placed in small spaces, being able at the same time to reach a load capacity of 2000/2500 N at 20/30 mm/s

In picking and storage phases of packed goods, electric linear actuators operate inside **cobots, motorized arms, AGVs, AMRs and mobile robots** in general. Movements are mainly related to the steering and the height calibration of the loading platform according to the kind and the number of packs to be transported and placed in the warehouse.

The effectiveness of a system is measured in terms of productivity, and the electric linear actuator allow increasing the level of control and safety of processes, reducing the possible errors and ensuring a higher continuity in production, as the efficiency can't be related only to the operator presence and intervention. Each machine, in fact, must be oriented to the duty cycle optimization, avoiding machine downtime as much as possible and adapting to different products, materials, weights.

MecVel purpose is to provide excellent linear motions and results, implementing along the production lines electric systems in replacement of hydraulic or pneumatic ones, to make the packaging field more and more "green" in compliance with the industry 4.0 concepts of energy efficiency and sustainable production