

Case Study

# The Logistics Processes Revolution





# Maximum automation of manual processes

## Customer and task

AZ Pneumatica, through a complex manufacturing process, produces and distributes worldwide more than 60 thousand components. Confronted with a rapid growth in demand, and the resulting rise in managerial challenges, the company needed to implement significant changes. This necessitated the complete automation of its production and distribution processes.

AZ Pneumatica needed a buffer system to manage the various processing stages of semi-finished products, and a robotic solution to handle materials between the production areas, some located on different floors.

## Solution

In 2003, the company enhanced its component storage capabilities by installing 8 VLM Kardex Shuttles and 5 VCM Kardex Megamats. This upgrade not only saved valuable assembly space but also enabled precise inventory control and seamless access to goods.

The most recent operation was divided into two phases: in 2021, a system consisting of 2 VBM Kardex Miniload-in-a-Box and 4 VLM Kardex Shuttles was implemented, increasing the number of daily orders processed while reducing human error.

The system deployed in 2023 consisted of one VBM Kardex Miniload-in-a-Box and two VLM Kardex Shuttles. This integration facilitated the optimization of production areas by reducing the footprint previously designated for semi-finished product storage. Moreover, it rationalized human resource allocation, redirecting efforts toward production-centric tasks rather than logistical operations. Additionally, the introduction of four AMRs automated inter-plant transportation of goods.



## Case at a glance

### Transitioning from semi-manual to automatic processes

AZ Pneumatica is a leading Italian company in the design, production and international distribution of pneumatic valves and cylinders, and in the realisation of highly customised integrated solutions. The collaboration with Kardex began more than 20 years ago, and in 2021 the first of a two-part ambitious project for the full automation of the production and distribution processes was launched.





### Scope of delivery since 2021



2 VBM Kardex Miniload-in-a-Box with 2,500 boxes and  
4 VLM Kardex Shuttles with 400 trays (12 m)



1 VBM Kardex Miniload-in-a-Box of 670 boxes and  
2 VLM Kardex Shuttles in external insulation (16 m)



4 AMRs & WMS