

Mobile robot automated VNA storage

EKX 5a

Lift height: 11000-13000 mm / Load capacity: 1400-1600 kg

JUNGHEINRICH

The high performer

in automated narrow-aisle warehouses.

For executing warehouse tasks at high lift heights.

Our powerful and modular EKXa excels as a mobile robot, based on our proven EKX electric high level combination order picker / three-lateral stacker. The EKXa is characterised by maximum performance at lift heights up to 13,000 mm and sets benchmarks in automated narrow aisle warehouses.

Equipped with an 80-V drive system and a maintenance-free synchronous reluctance motor, it achieves new performance standards while reducing energy loss at the same time. Thanks to the optional integration of an on-board battery charger, conductor rail and current collector, it is optimally prepared for 24/7 use. The optional 360° safety sensor system allows the EKXa to be used in an open, unfenced narrow aisle warehouse. The pallet and clearance detection option can be used to automate existing racking in previously manually operated narrow aisle warehouses.

The field-tested wire guidance in combination with RFID transponders ensures precise positioning at the storage location as well as automated aisle changes. With the option of stepped automation, you can benefit from maximum availability, efficiency and performance of your warehouse processes.

All benefits at a glance

- Gradual automation
- 360° safety sensor system for use in open narrow aisle warehouses
- Pallet and clearance detection for the operation of existing racking in manual narrow aisle warehouses
- Optional on-board battery charger for 24/7 operation
- Planning, implementation and after sales support from a single source

Your Jungheinrich mobile robot

for maximum customer benefit.



Efficiency

Maximum performance with the most efficient automation solutions.

Our high performer for your high-bay racking: Thanks to a maintenance-free synchronous reluctance motor and 80-V drive system.

Established standard truck used as basis

- Basic truck EKX Series 5 high rack stacker
- In combination with extensive safety technology as well as automation and navigation components.

Efficient drive technology and equipment

- 80-V drive.
- Maintenance-free synchronous reluctance motor.
- RFID reader for positioning in narrow aisles.
- Patented regenerative lowering and braking for maximum energy recovery during operation.
- Optional equipment with on-board battery charger, bus bar and current collector for efficient 24/7 use.

Automation in inventory warehouses

- Pallet and clearance detection using cameras and sensor technology enables the automation of manual existing racking.



Safety

Best prerequisites for working safely.

Reliable communication: the truck communicates with the important control systems via Wi-Fi.

Process reliability in the warehouse

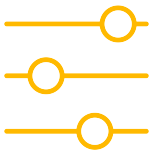
- Reliable wire guidance technology for safe driving anywhere in the warehouse.
- Wi-Fi technology allows the truck to communicate with upstream management and control systems.

Everything in view with the FTS control console

- The graphic display on the AGV control panel displays all the information relating to the AGV in use.
- Depending on the project-specific requirements, individual customer functions can be specially implemented and activated for the respective system.

360° safety sensor system

- An intelligent configuration of personal protection scanners on the EKXa enables 360° safety. This allows the EKXa to be used in an automated narrow aisle warehouse without fencing and Area Access Control.
- Appropriate warning and protective fields ensure controlled braking and that the truck comes to a safe standstill in front of obstacles in its path.



Individuality

An automated solution as individual as your business.

Welcome to the future: We offer proven and optimised basic trucks as the basis for your automation.

Precise navigation

- Millimetre-accurate positioning of trucks and loads at the defined stations.
- Project- and environment-specific design and implementation.

Gradual automation

- Successive automation for future-proofing your narrow-aisle warehouse.
- warehouseNAVIGATION for ultra precise approach and positioning at the storage location to relieve strain on the operator.
- Semi-automation with warehouseNAVIGATION boosts throughput by 25%.
- In fully automatic mode, autonomous manoeuvring in storage aisles and reliable completion of assigned transport and storage tasks.
- Wi-Fi technology allows the truck to communicate with upstream management and control systems.

Overview

The right solution for your applications:

Name	Load capacity/load	Lift height (max.)	Travel speed unladen
EKX 514a	1400 kg	13000 mm	10.5 km/h
EKX 516ka	1600 kg	12000 mm	12 km/h
EKX 516a	1600 kg	13000 mm	12 km/h

The German production facilities in Norderstedt, Moosburg and Landsberg are certified as well as our Genuine Parts Center in Kaltenkirchen.

ISO 9001
ISO 14001

Jungheinrich fork lift trucks meet European safety requirements.

CE

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