

Future-proof solutions for your order-picking tasks.

Our EKS vertical order pickers of series 1, 2 and 3 with capacities of up to 1,200 kg.

**JUNGHEINRICH**





Today's solutions for tomorrow's challenges.

The EKS 110, 210 and 312.

With customers demanding ever increasing speed and flexibility when it comes to the delivery of their goods, the challenges faced during order picking are also on the rise. To manage the growing diversity of products and satisfy the needs of customers, you require powerful, versatile and future-proof solutions. We can offer you such solutions in the form of our EKS range of Jungheinrich vertical order pickers. Be it in wide or narrow aisles, from the first rack level or for order picking heights of up to 13 metres – we have the right solution for your application.



The ideal EKS for all applications.

Our vertical order pickers at a glance.

Ergonomic order picking

The **EKS 110** is the ideal truck for order picking up to the third rack level in wide aisles: Both the platform and load section are raised up to a height of 3,000 mm, enabling order picking operations at heights of up to 4,600 mm.

The counterbalance design allows for a wide range of loading aids to be raised off the ground both lengthwise and crosswise. The load section is optionally available in a walk-on design (with guard) or with an additional lift (without reducing residual capacity). The additional lift ensures that the picked goods can be deposited at an accessible height. The platform can also be adjusted depending on the loading aid used.

If pallets are not required for order picking, the order-picking platform offers sufficient space for depositing the goods.



EKS 110



EKS 110 with additional lift



Maximum picking performance

The vertical order pickers **EKS 210** and **EKS 312** are suitable for use in wide or narrow aisles: We offer the ideal solution for both applications.

The **EKS 210** reaches lift heights of up to 6,000 mm and an order picking height of more than 7,000 mm. With a width of just 900 mm, the truck is particularly compact and manoeuvrable, making it highly suitable for free-ranging operations in wide aisles.

The **EKS 312** is the perfect choice for medium and high lift heights up to 11,500 mm and an order picking height of more than 13,000 mm. The 48-Volt 3-phase AC technology makes it particularly powerful in narrow aisles, while its walk-on platform renders it the ideal truck for use in DIY and furniture stores.

Automation with proven quality

The **EKS 215a** is an Automated Guided Vehicle System based on our vertical order pickers. It thus combines tried-and-tested mechanical engineering with innovative automation, including precise navigation technology and safety components.

This ensures maximum levels of reliability and safety. The EKS 215a is the perfect choice when it comes to raising the efficiency of your transport processes. Thanks to the adjustable forks, the automated order picker is suitable for a wide range of applications and can also transport special load carriers and closed pallets.



EKS 210

EKS 312



EKS 215a



Versatile performance with the EKS 110. Simply climb on and drive off.

Efficient order picking at up to 4,600 mm

The EKS 110 is characterised by its compact design and impressive performance, particularly in the transition from horizontal to vertical order picking.

Rapid order picking

The touch mode for the additional lift integrated in the backrest provides a quick solution for moving to the next picking location and gaining direct access to the loading aid. This is particularly useful in the case of low lift heights and frequent entry and exit.

Robust construction for enhanced protection

To prevent damage and malfunctions, the order picker's impact-protected drive panel ensures reliable protection for the components inside the drive compartment. The optional bumper made from rubber or steel provides an additional level of protection on request.

Your benefits:

- New 3.2-kW drive for significantly faster acceleration: The next picking location can be reached more quickly.
- Optional drivePLUS performance module for travel speeds of up to 13 km/h.
- Increased speed during touch mode for efficient order picking processes, particularly at low lift heights.

Ergonomic operation

To enable efficient and safe working, the EKS 110 features a low entry height and enhanced grip on the stand-on platform. The tilted steering wheel supports natural movements and thus protects the operator's joints. For frequent travel in load direction, the second control unit ensures excellent forward visibility and even shorter paths between travel and order picking. The optional jetPILOT multifunctional steering wheel enables intuitive and convenient operation similar to driving a passenger car.



jetPILOT

See and be seen

The optional DayLED daytime running lights ensure enhanced visibility in poorly lit areas. The risk of collision can be further reduced with the Floor Spot.

Individual workplace

Thanks to the diverse range of options, including an integrated writing pad and a USB connection, the EKS 110 can be customised to fit the individual needs of the operator.





Save energy with the EKS 110. Work with lasting efficiency.

High capacities for long operating times

The energy-saving 3.2-kW 3-phase AC drive system of the EKS 110 and high battery capacities of 375 to 620 Ah ensure long operating times. Thanks to our 2Shifts1Charge guarantee and innovative lithium-ion technology, the truck can also be used in multi-shift operation.



Two shifts on one battery charge

2Shifts1Charge allows our order pickers to complete two shifts on just one battery charge thanks to an optimised energy concept. We guarantee this. As a result, you save valuable time and precious energy while simultaneously reducing operating costs.

LITHION technology Lithium-ion batteries for more flexibility

With lithium-ion batteries, you benefit from rapid charging times, maintenance-free technology and long battery life. You can perform boost or intermediate charging at any time, thereby avoiding the need for tedious battery changes. In addition, the significantly greater energy efficiency ensures high availability of your trucks.



Enhanced process reliability with the EKS 110.

Perfectly connected to the WMS.

WMS connection via the Jungheinrich Logistics Interface

To optimise your order picking processes, the EKS 110 can be easily connected to your warehouse management system (WMS) via the award-winning Jungheinrich Logistics Interface software. This enables simple, real-time transmission of orders and information to the truck controller, which in turn raises process reliability while minimising security risks.

Greater picking performance with pickingPRO

The pickingPRO function offers you a number of benefits. When picking fragile goods, for example, automatic adjustment of the travel parameters by the WMS allows the EKS 110 to automatically adapt its travel behaviour to the sensitive products. Upon order completion, the truck automatically reverts to the original travel program. This protects both the goods and the truck, allowing your operators to devote their entire attention to the order picking task.

An additional display in load direction enables ergonomic order picking without constant turning around since the operator can keep an eye on all important information of the WMS and truck controller. A pushbutton for rapid confirmation of the order picking position and quantity helps to save additional time.



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Flexibility and performance.

Perfectly prepared with the EKS 2 and 3.

Maximum picking performance up to more than 13,000 mm

The EKS order pickers of series 2 and 3 offer maximum picking performance in wide aisles. Both trucks set new benchmarks when it comes to flexibility, efficiency and ergonomics.

High flexibility thanks to modular construction

The Jungheinrich modular system offers a wide range of individually adjustable configuration and customisation options, tailored to your exact requirements.

The available options and performance features include:

- Modular load-handling devices such as platforms, walk-on load sections and additional lifts.
- An adapter system for flexible configuration of cabin width and electronic height limitations for the mast.
- Various assistance systems for enhanced safety.

This ensures that your truck is perfectly adapted to all applications, thus providing a future-proof solution for your company.

Our control system offers you additional flexibility – and it is TÜV-certified

Form follows function and the control system follows the strategy – your strategy! This offers the advantage that the travel and lift performance of the order picker is ideally suited to your application requirements. And if these should change in the future, all the parameters can be adapted to ensure that the EKS offers maximum performance and efficiency at all times. This is made possible by:

- Individual travel programs.
- Adjustable programming.
- Rack height select (optional).
- warehouseNAVIGATION (optional).





The ground determines the performance.

Our EKS 2 and 3 know what's coming.

Top performance starts at ground level

Even the best truck will not be able to realise its full performance potential on poor surfaces. Just a few damaged areas will impair performance throughout your entire warehouse. Once again, the EKS order picker with RFID technology (optional) offers the best solution for maximising performance levels: It registers bumpy areas and uneven surfaces via a transponder and reduces travel speed exactly where required. If several trucks are being used, these floor profiles can be communicated to all the trucks in your warehouse via a USB interface.

Your benefits:

- Enhanced performance thanks to optimised speed profiles that adapt to the floor conditions.
- Low costs thanks to straightforward installation.
- Maximum flexibility through adjustment options at any time.



“You have reached your destination!”

The EKS with warehouseNAVIGATION.

Fully interconnected

warehouseNAVIGATION enables straightforward integration of the truck navigation system into your existing IT system landscape via the Jungheinrich Logistics Interface. And this is how it works: Your warehouse management system (WMS) transmits information on the next target location to the Logistics Interface on the truck’s terminal. The Logistics Interface then “translates” the data and communicates it directly to the truck controller.

From A to B in the shortest time by the shortest route

Using RFID transponders in the ground, the EKS detects its current position within the aisle. The operator only has to issue the travel/lift commands. The order picker then switches to diagonal travel to approach the target location (semi-)automatically and with utmost precision. It does so in the shortest time and by the shortest route possible, with as much or as little energy as necessary.

Optimum order-picking support

Once the pallet location has been reached, the Pick-by-Light system automatically activates the working lights on the relevant side.

Your benefits:

- Up to 25 percent higher productivity due to prevention of errors.
- Enhanced picking quality thanks to accurate approach of the destination by the fastest route.
- Reduced strain on the operator, allowing him to focus on his order-picking tasks.



All key functions at a glance.

Thanks to the modular control panel.

Individually adjustable operating concept

Every application poses different challenges to the operator. Each operator places different requirements on the truck. Therefore, our EKS 210 and 312 feature a modular control panel in three variations:

- Operation in load direction for frequent picks on short routes.
- Operation in travel direction for fast travel over long routes.
- Operation in load and travel direction for mixed applications.

In addition, the height-adjustable control panels can be ideally positioned for every operator at the touch of a button, allowing for relaxed travel and ergonomic order picking. This is complemented by extensive storage facilities for work documents and utensils. As a result, the operator always has a clear view of his immediate surroundings.

Improved ergonomics

The EKS of series 2 and 3 boast numerous ergonomic features. The additional lift, for example, allows the pallet to be positioned at the ideal picking height. The graphical display can be used to read all important information, e.g. concerning the steering angle, the charge status or the lift height. It also enables quick data entry via the numeric keypad, e.g. for an optional PIN lock.

Simplified travel

All hydraulic functions are controlled via the multiPILOT, as are travel direction, travel speed and horn. All this is done with minimal effort and using just one hand, without having to reach around. The left hand remains free to steer. The compact steering wheel and spinner knob ensure safe, reliable grip when cornering.

First to start in the morning, last to finish in the evening. A bundle of energy.

Enhance your efficiency

Do you want to increase your performance levels while reducing maintenance costs and lowering energy consumption? Then turn to us, the pioneer of 3-phase technology! We have been setting the standard in this field for more than 15 years. And now our engineers have pushed the physical boundaries even further by once again enhancing overall efficiency. And this is the result.

Recovering and controlling energy

The order picker not only saves energy, it also recovers it. The energy produced during regenerative braking and lowering of the load is fed directly back into the battery or made available immediately for further truck movements. The computer system of the EKS not only controls the truck and its performance, it also controls the energy flows, thereby providing active energy and battery management. This ensures optimum efficiency and maximum battery life.



Saving energy

Extremely long operating times – up to two shifts on one battery charge – have always been a key feature of our system

trucks. Our new EKS generation goes one step further: Despite higher dynamic levels with up to 15 percent greater picking performance, the EKS uses just as little energy as its predecessor. This allows you to re-energise your intralogistics operations across the board.

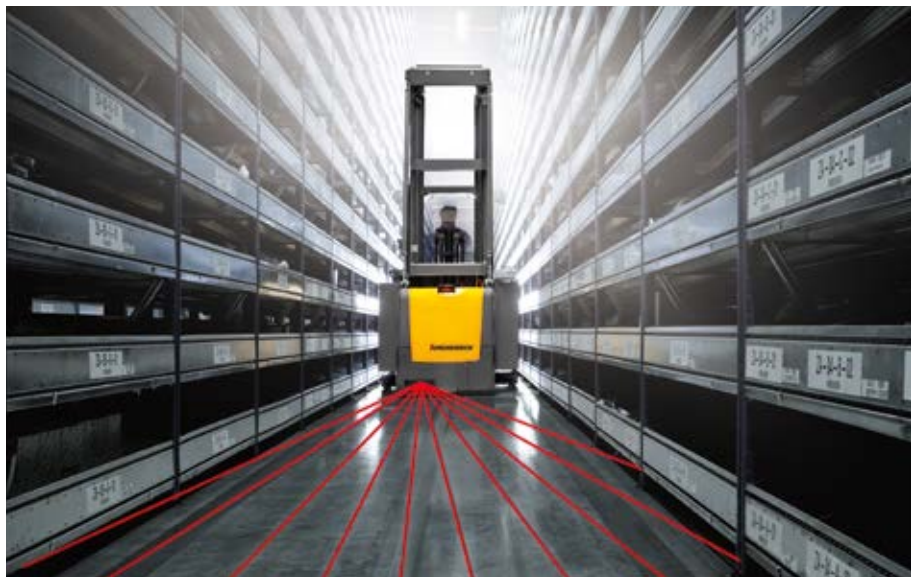




Top performance at maximum capacity. Our assistance systems ensure safety.

Enhanced safety in the warehouse

The integrated Personal Protection System (PPS) features a warning and protection field to avoid personal accidents and damage to the truck. The enhanced personal protection and collision avoidance system "PPS Anti Collision" provides reliable assistance when using multiple trucks in one aisle. The 15 metre wide collision protection field not only improves safety in the warehouse, but also increases flexibility and throughput performance.





Guidance systems

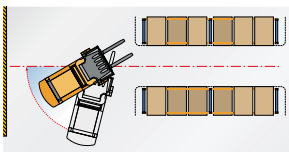
In narrow aisles, space requirements for travel routes are minimised by particularly low clearance between truck and rack. Truck guidance systems enable high travel and lift speeds, while also reducing the strain on the operator. To ensure safe operation and high throughput performance, two types of systems are available: wire guidance and mechanical guidance.

Wire guidance

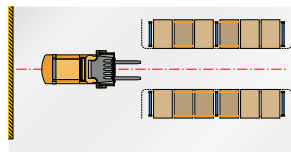
Wire-guided trucks achieve higher speeds with maximum safety using extremely high precision, approach angles of up to 80° and short wire acquisition times. A guide wire installed in the ground generates an electromagnetic alternating field, which is detected by sensors on the truck. Any change in position is registered and can be compensated automatically.

Mechanical roller guidance

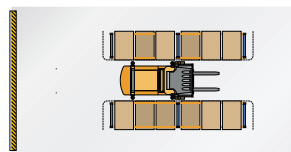
The order picker is mechanically guided between two steel profiles bolted to the ground. Two rollers are fitted to each side of the chassis, which keep the truck between the rails in the middle of the aisle.



Guide wire detection and initiation of the automatic wire acquisition process



Completed wire acquisition and active wire guidance in the narrow aisle



Mechanical roller guidance in the narrow aisle

Greater efficiency thanks to automation.

The EKS 215a.

Automation with proven quality

The Automated Guided Vehicles from Jungheinrich are based on tried-and-tested series production trucks, which are equipped with innovative automation components including precision navigation and safety technology. Our EKS 215a can be used in mixed operation with manual trucks and pedestrians. Regardless of whether you integrate it in existing factory structures or use it in a new building, the EKS 215a is the perfect choice when it comes to raising the efficiency of your transport processes.

Maximum flexibility

With its long battery life and adjustable forks, the EKS 215a is ideal for a wide range of applications. Be it for transports across long distances or for precision load handling – the EKS 215a not only raises efficiency, but also reduces the strain on your employees.



The energy system that is right for you

Be it in single-shift operations or 24/7 deployment, charging during downtimes or automatic charging – our Automated Guided Vehicles offer the right energy system for your requirements.

Flexible system integration

To optimise your processes, our Automated Guided Vehicles can be integrated in your existing ERP system or used independently as a stand-alone system, thus providing an efficient solution for your company's transport tasks. In a

stand-alone system, for example, it is possible to generate orders via pushbuttons or sensors. In an interconnected system, we connect to your ERP system via our multi-award winning Jungheinrich Logistics Interface middleware. As well as producing orders via pushbuttons and sensors, this also allows us to process orders from your ERP system.

Everything from a single source

Jungheinrich is an ideal partner for your projects, ready to assist you every step of the way – from the planning phase right up to the system's implementation. Our specialists will visit you on-site to implement the Automated Guided Vehicle Systems. When it comes to servicing, our technicians are on-hand with all the requisite tools and expertise.

Your benefits:

- Enhanced efficiency of your transport processes.
- Safety in mixed operation with manual trucks.
- Scalability thanks to simple expansion of your system with additional travel routes and trucks.
- Flexibility thanks to integration into existing structures.
- Reliability in single-shift operation or 24/7 deployment.



For maximum safety and reliability.

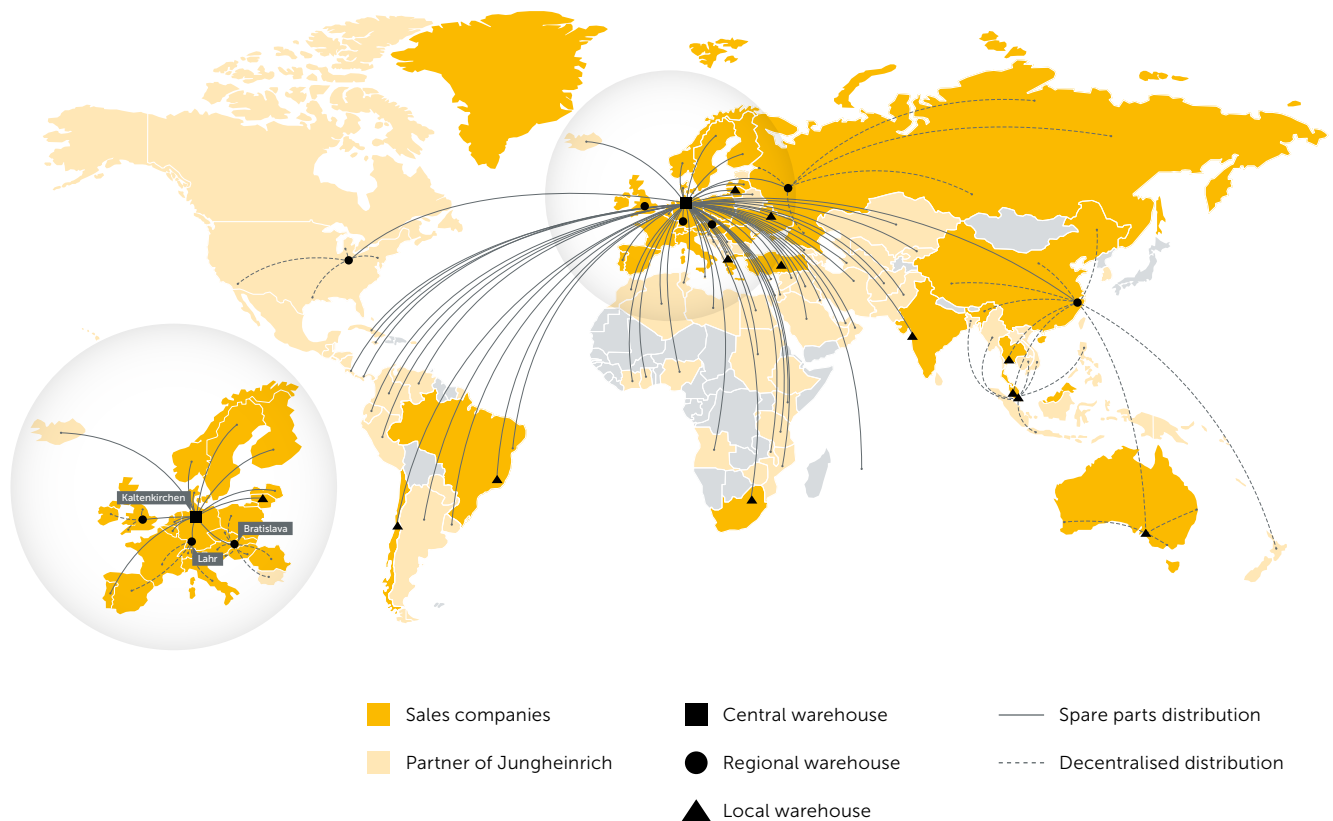
Service and support from a single source.

At your side across the globe

When you opt for a Jungheinrich product, you are always on the safe side. With more than 4,500 Jungheinrich service engineers across the globe, we have one of the most comprehensive service networks in the industry.

Be it preventive maintenance against failures, regular safety inspections, repairs or full-service agreements for a complete carefree package – with us, you are always in good hands.

Your Jungheinrich service network



Always nearby

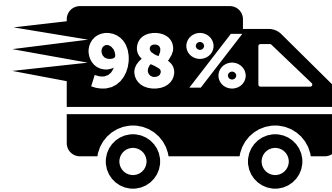
Thanks to our close-knit global service network, our qualified service engineers are on your premises within the shortest possible time in case of a service call or failure. Globally consistent quality standards paired with rapid response times and short lines of communication ensure that downtimes in your logistics system are reduced to an absolute minimum.



sales and service subsidiaries in Europe, Asia, South America and Australia

Trust in the original

Wherever you are in the world, we exclusively use genuine spare parts. Only the original maintains optimal interactions between all components with maximum reliability. Our spare parts warehouses are located across the globe to ensure that our genuine spare parts always reach your site as quickly as possible. Within Europe, the necessary components are sent by overnight express, meaning that they will be with you the very next morning. Our spare parts availability of 98 percent reduces downtimes to an absolute minimum.



overnight delivery in Europe

24/7 support

Our support staff are your first port of call in the event of a fault or when you have general questions on using your system. All of our support staff have extensive experience and will be able to solve the majority of issues directly via remote access. If this is not possible, our support team will immediately contact a local service engineer. At Jungheinrich, service and support work hand-in-hand.

Depending on your individual requirements, you can choose between different support levels. We can accommodate all needs – be it 8 hours a day on 5 days a week or round-the-clock support 365 days a year.





1

Planning and
project design

2

Trucks and
assistance systems

Racking
and warehouse
equipment

Software and
automated systems

3

Implementation
and system
integration

4

Service and
support

Safeguarding the future of your intralogistics.

Complete logistics system solutions from a single source.

Regardless of whether you want to optimise your existing system or are planning a new system, Jungheinrich offers future-proof logistics solutions from a single source. As a general contractor we can take care of all phases of your projects – from the planning phase to the implementation and handover of keys, and even beyond if you require. Your personal Jungheinrich contact will coordinate all the relevant functions and maintain a clear overview at all times. This gives you time to focus on the more important things.

Not possible is not an option.

Rental & Finance.













Jungheinrich Rental & Finance provides you with individual solutions tailored to your current requirements. This means that you only pay for the services that you actually need. You remain flexible and can quickly respond to changes.

With Jungheinrich Rental & Finance, you can be sure that your business – and your trucks – run smoothly. Regardless of whether you want to own the truck or simply use

it, whether you are looking for a new or a used truck. Perhaps you need the truck tomorrow or only in three months, for several years or only for a single day.

All of the services listed in the table below can be combined to suit your needs and are easily adjustable during the contract period.

Customisable rental options

	<p>Truck With more than 600 models and variants, you will always find the right truck.</p>		<p>Start date Tomorrow, in one month or next year. You name the date, we will deliver.</p>
	<p>Operational guarantee Should your forklift truck break down, you will be provided with a free replacement within 24 hours.</p>		<p>Term Full flexibility for a period of one day to 120 months.</p>
	<p>Full service We undertake all maintenance, service, safety checks and repairs.</p>		<p>Flexibility of duration Return the truck as soon as it is no longer required.</p>
	<p>Maintenance service Preventive care and maintenance ensure long-term operational readiness.</p>		<p>Protection against mechanical breakdown Even a forklift truck can be involved in an accident. Protect yourself against such incidents.</p>
	<p>Battery service We regularly check and maintain the battery, thereby extending its service life.</p>		<p>Fleet management Comprehensive analytical monitoring and evaluation of your fleet data.</p>
	<p>Safety service We will be happy to carry out the annual safety inspection (TÜV for forklift trucks) for you.</p>		<p>Terms of payment Use the truck now, pay later. We will be happy to arrange terms of payment.</p>

ISO 9001 The German production facilities
ISO 14001 in Norderstedt, Moosburg
and Landsberg are certified.

 Jungheinrich trucks
conform to the European
Safety Requirements.

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