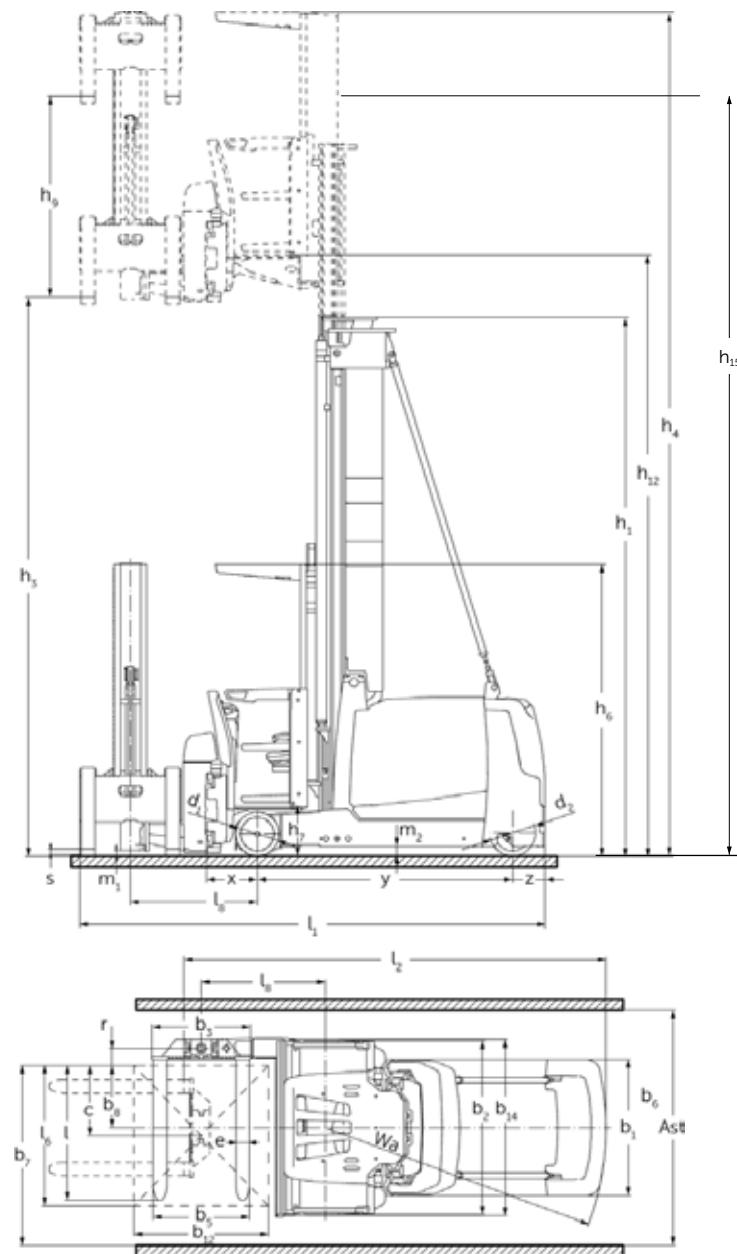


# The Jungheinrich Advantage



| Standard values for working aisle widths |               |                    |       |                         |       |  |       |          |       |         |       |   |        |
|--|---------------|--------------------|-------|-------------------------|-------|--|-------|----------|-------|---------|-------|---|--------|
| Pallet size (L x W)                      |               | Stacking-in depth  |       | Clear aisle width (Ast) |       | Transfer aisle (Ast <sub>t</sub> ) theoretical |       |          |       |         |       | Transfer aisle (Ast <sub>s</sub> )* practical |        |
|  |               | With rail guidance |       |                         |       | EKX 410/412/514                                |       | EKX 516k |       | EKX 516 |       |   |        |
| in                                       | mm            | in                 | mm    | in                      | mm    | in   | mm    | in       | mm    | in      | mm    | in  | mm     |
| 48 x 40                                  | 1,219 x 1,016 | 48                 | 1,219 | 66.5                    | 1,689 | 142.8  | 3,627 | 146.7    | 3,726 | 158.4   | 4,023 | +19.7   | +500   |
| 48 x 48                                  | 1,219 x 1,219 | 48                 | 1,219 | 66.5                    | 1,689 | 156.3  | 3,967 | 160.9    | 4,087 | 172.5   | 4,382 | +19.7   | +500   |
|  |               | With wire guidance |       |                         |       | EKX 410/412/514                                |       | EKX 516k |       | EKX 516 |       |   |        |
| 48 x 40                                  | 1,219 x 1,016 | 48                 | 1,219 | 68.5                    | 1,740 | 151.7  | 3,853 | 163.5    | 4,153 | 175.2   | 4,450 | +39.4   | +1,000 |
| 48 x 48                                  | 1,219 x 1,219 | 48                 | 1,219 | 68.5                    | 1,740 | 166.9  | 4,239 | 170.9    | 4,341 | 182.5   | 4,636 | +39.4   | +1,000 |

\*The practical transfer aisle width is a reference value.  
Note: (Ast) refers to the clear working aisle, (Ast<sub>t</sub>) refers to the transfer aisle.

# The Jungheinrich Advantage

## Ergonomics

- Generous compartment space for operator to drive truck, order pick and store job-related accessories.
- Large panoramic front barrier window provides excellent view of the fork tips allowing the operator to easily confirm proper load engagement.
- Optimum operator positioning due to electronically adjustable control panel for superior comfort.
- Padded knee supports for comfort while order picking.
- Comfortable sitting or standing operation due to the spring-loaded, adjustable and foldable seat.
- Large LCD color display with all important information at a glance. High flexibility through softkey control.
- Comfort package with bright LED work lights and dual operator fans.
- Electronic power steering for easy, precise maneuvering.
- Modular storage systems (optional).

## Productivity

- Simultaneous lifting and lowering of main and auxiliary masts saves time for greater productivity.
- Crane arm with auxiliary mast for additional 70° lift.
- Electromagnetic spring-loaded brakes on load and drive wheel.
- Battery rollers for quick and efficient battery changing.
- Diagonal drive with direction-dependent speed profiles for maximum productivity.
- Jungheinrich curveCONTROL for calculated speed reduction in curves.

## Intelligent Systems

- RFID technology for tracking and controlling truck behavior in the very narrow aisle.
- Wire guidance with multi-frequency control.
- Warehouse Navigation System with precise location approach and automatic stacking procedure.

## Flexibility

- Multiple optional performance packages to meet application and throughput demands.
- Available assistance systems for improved processing and easier pallet handling.
- CAN-Bus system for reliable data transfer and high flexibility.

## High Energy Efficiency

- New, exclusive synchronous AC motor technology reduces energy losses and allows even longer operating times.
- Dual energy recovery during braking and lowering via patented hydraulic valve technology.
- Reduced energy consumption from compact hydraulic system with short transmit distances and less resistance.
- Compact electronics mean less cables and connectors, and tuning of all components to one another.
- Active battery and energy management reduces the current peaks and conserves the battery and components.
- High performance allows up to two shifts on a single battery charge (guaranteed on 514/516k/516 models).

## Commissioning And Maintenance

- Quick and reliable commissioning through teach-in process.
- The integrated diagnostic system allows for fast and accurate fault diagnosis.
- 1,000 hour service intervals lower maintenance costs and greater reliability.
- Maintenance-free synchronous AC motors and wear-free sensor systems ensure high operational reliability.

## warehouseNAVIGATION System (Optional)

- Up to 25% higher throughput efficiency in the very narrow aisle warehouse.
- Simple connection of the EKX to the existing Warehouse Management System (WMS) via the Logistics Interface middleware.
- Automatic horizontal and vertical positioning within +/- 2mm accuracy.
- Automatic stacking and retrieval operation.
- Automatic confirmations back to the WMS eliminate manual scanning for process reliability and time savings.
- High flexibility to accommodate future warehouse expansion.

## Performance Packages

- liftPLUS for increased lifting speeds.
- speedprofilePLUS for weight-based optimization of traverse speed.
- Residual capacityPLUS for increasing residual capacities.
- Floor Pro system for hydraulic vibration dampening on uneven floors.
- sideshiftPLUS for additional 4" traverse to each side.

## Assistance Systems

- Jungheinrich warehouseNAVIGATION for semi-automated location approach.
- Jungheinrich Logistics Interface middleware for easy connection to any existing WMS.
- Stack-by-Light spotlights for directional-assisted stacking.
- Pick-by-Light spotlights for directional-assisted order picking.
- operationCONTROL for load weight indication on the display and warning signal if parameterized weight is exceeded.
- positionCONTROL for height pre-selection.
- PPS Standard and PPS Plus integrated personnel protection systems sense presence of pedestrians and obstructions in the aisle and alert operator; slow and/or stop truck as necessary.
- Floor Spots as visual warning signals for pedestrians - available in both directions.

## Optional Features

- Comfort Plus driver's seat with lumbar support and heating.
- Synchronized swiveling and traversing of the forks (automatic process).
- Modular storage systems.
- Wire or rail guidance for efficient control.
- Auxiliary mast with higher additional lift.
- Symmetrical fork positioner to accommodate different size pallets and load widths.
- Asymmetrical fork positioner for adaptation to load size and sideshift for comfortable order picking.
- Jungheinrich radio data terminals with electrical interfaces for WMS.
- Jungheinrich barcode scanner and holder with multiple mounting positions.
- Easy Access Entry System via soft key, PIN code or transponder.

## Parts when you need them

Jungheinrich's Parts Fast or Parts Free Guarantee ensures next-business-day delivery by 5:00 PM of all Jungheinrich parts in the United States, or they're free, including freight. For customers in Canada and Mexico, the guarantee ensures shipping of parts within 24 hours from the time the order was placed by the dealer. See your local Jungheinrich dealer for program details.

\* Programs may be subject to change without notice and may vary by region. Please ask your local Jungheinrich dealer for complete terms and conditions.



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www.jungheinrich-lift.com



Ergonomics: efficient operating concept for more freedom of movement, with electrically adjustable control panel

Intelligence: truck tracking and behavior control via RFID technology for simple system integration

Energy Efficiency: top performance and lowest battery consumption with new synchronous AC motors

Flexibility: versatile design with modular construction and optional performance and assistance packages

Technology Leading: semi-automated position approach with exclusive Warehouse Navigation System



# EKX 410/412/514/516k/516

## Man-Up Turret Truck (2,200 - 3,500 lbs.)

The Jungheinrich® EKX series of turret trucks has been the global industry benchmark for years. Now with the introduction of new maintenance-free synchronous AC motors, the standard for higher performance has been raised - all while further reducing energy loss by as much as 10 percent. This allows the EKX to operate two full shifts on a single battery charge in most applications for more pallet moves per hour.

Since 2007, Jungheinrich systems trucks have used RFID transponder technology to track and control the behavior of turret trucks in the very narrow aisle. In addition, our exclusive Warehouse Navigation System uses this technology for fast, efficient and precise approach to pallet locations. Wasted travel, adjustments and

back-tracking can be eliminated. The productivity gains are up to 25% in most applications. And even if requirements change in the future, the system remains flexible and can easily adapt to expansions and changing demands.

Our modular performance and assistance packages ensure the EKX is specifically optimized for your unique application. The new Floor Pro option provides hydraulic vibration dampening over uneven floors for improved efficiency and performance. The sideshiftPLUS option helps facilitate load handling and saves time, while allowing the EKX to work effectively in very narrow aisles.

The operator compartment offers plenty of space and storage for the operator, while a foldable seat and electrically adjustable control panel allow for comfortable standing or seated operation. The large front barrier window provides an excellent view of the forks allowing the operator to easily confirm proper load engagement.

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