

# Mobile Robots.

Indicators for use.



**JUNGHEINRICH**

# Mobile Robots.

Autonomous Mobile Robots (AMR) and Automated Guided Vehicles (AGV) – fully automatic, precise and reliable.

Whether for efficient underload transport, space-saving goods-to-person order picking, or Robotics-to-goods applications for maximum dynamic in the warehouse – our Autonomous Mobile Robots (AMR) are your fast gateway to automation. Or you can use our Automated Guided Vehicles (AGV) as the heart of your automated logistics. Controlled by intelligent software and equipped with extensive safety sensors, they perform recurring tasks throughout the production and warehouse areas while relieving your employees.

## AUTONOMOUS MOBILE ROBOT (AMR)

### SOTO

Intelligent transport robot for small load carriers up to 20 kg, for space-saving production supply with increased demand:

- ▶ Adjustable gripper with conveyor belt.
- ▶ Operating heights between 400 mm and 1,600 mm.
- ▶ Load capacity up to 24 containers.



## STACKER TRUCK

### ERC 213a / 217a

Highly manoeuvrable AGV suitable for standardised load aids and accessible stations:

- ▶ Low space requirement.
- ▶ Lift height up to 4,400 mm.
- ▶ Load capacity up to 1,700 kg.



## AUTONOMOUS MOBILE ROBOT (AMR)

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Small, agile mobile robot, designed for horizontal transport a defined area:

- ▶ Table transport.
- ▶ Pallet transport by backpack.
- ▶ Load capacity up to 1,000 kg.

## PALLET TRUCK

### ERE 225a

Powerful AGV, suitable for standardised load aids, multi-pallet and long-distance transport:

- ▶ Multi-pallet transport.
- ▶ Fork length up to 2,400 mm.
- ▶ Load capacity up to 2,500 kg.



Precise positioning through laser navigation or wire guidance technology and transponders for automated high-rack stackers.



A high degree of efficiency in multi-shift operation thanks to intelligent energy management.

## Primary indicators for AGVs/AMRs:

- ▶ Multi-shift operation.
- ▶ Continuous transport.
- ▶ Frequent transport damage caused by manual transport.
- ▶ Standard loading devices (e.g. euro pallets, industrial pallets and containers, lattice boxes).
- ▶ AMR: Horizontal transport over large areas.
- ▶ AGV: Lifting heights up to 6 m / up to 13 m for automated high-bay stackers.

## Conditions of use for AGVs/AMRs:

- ▶ Enclosed, dry hall.
- ▶ Hall temperature: 5 to 35 °C.
- ▶ Lane width from 2 m (single lane) for automated trucks.
- ▶ Aisle width 1.8 m and transfer aisle 6 m for automatic high-rack stackers.
- ▶ Industrial floors / narrow aisle floor for automatic high-rack stackers.

### HIGH-STACK TRUCK

#### EKS 215a

Versatile AGV suitable for closed loading devices and non-accessible stations:

- ▶ Adjustable forks.
- ▶ Lift height up to 6,000 mm.
- ▶ Load capacity up to 1,500 kg.

### HIGH-RACK STACKER

#### EKX 514a / 516ka / 516a

Powerful AGV with the option of step-by-step automation of very narrow aisle warehouses:

- ▶ "Man-up" high-rack stacker.
- ▶ Lift height up to 13,000 mm.
- ▶ Load capacity up to 1,600 kg.

### HIGH-RACK STACKER

#### ETX 513a / 515a

Flexible AGV for manual, semi-automatic or automatic use in high-bay warehouses:

- ▶ "Man-down" high-rack stacker.
- ▶ Lift height up to 13,000 mm.
- ▶ Load capacity up to 1,500 kg.

### TOW TRACTOR

#### EZS 350a

Robust towing truck, suitable for towing multiple trailers. Compact dimensions for use in narrow aisles:

- ▶ Complete manual and automated operation possible.
- ▶ Load capacity: up to 5,000 kg.



Comprehensive safety sensors for use in mixed operation.



Everything from a single source: from planning and implementation to service and support.

**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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