

# Are you looking for maximum manoeuvrability and energy efficiency?

Then you need our electric three-wheel and four-wheel fork lift trucks with energy recovery and capacities up to 2,000 kg.

**JUNGHEINRICH**  
Machines. Ideas. Solutions.





**JUNGHEINRICH**  
EFG 320

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3  
+35

# The choice is yours.

## Three or four-wheel variants.

The latest generation of our three-wheel and four-wheel fork lift trucks with three-phase AC drive systems are heavy-duty trucks, with performance levels that set the standard:

- Side battery access
- Electric steering
- SOLO and MULTI-PILOT control levers
- Innovative battery management
- Driver assistance systems
- Five adjustable performance profiles
- Automatic parking brake

### The essential difference:

Our Series 2 three-wheel trucks have a twin wheel which provides you with maximum manoeuvrability.

Our Series 3 four-wheel trucks have a high mounted fully floating axle which ensures maximum operational stability on uneven surfaces.

Your individual application area will determine which is the right and most cost-effective solution for you.



### Three-wheel advantage

Whenever maximum manoeuvrability is required on level surfaces in cramped conditions, there is only one cost-effective solution: A three-wheel truck with a twin wheel and fifth wheel steering for 180° rotation on the spot.



### Four-wheel advantage

When maximum operational travel stability is required even on uneven surfaces, our four-wheel trucks with a high mounted fully floating axle really come into their own. The fully floating axle absorbs even major ground irregularities, distributing the load reliably over all four wheels.

# The advantage: Our latest generation of 3-phase AC technology.

## High energy efficiency

With optimum efficiency and energy recovery while braking, our trucks are able to work for up to two shifts on a single battery charge. The advantage: In many cases, you can do without a large charging station or replacement batteries.

## Increased throughput efficiency

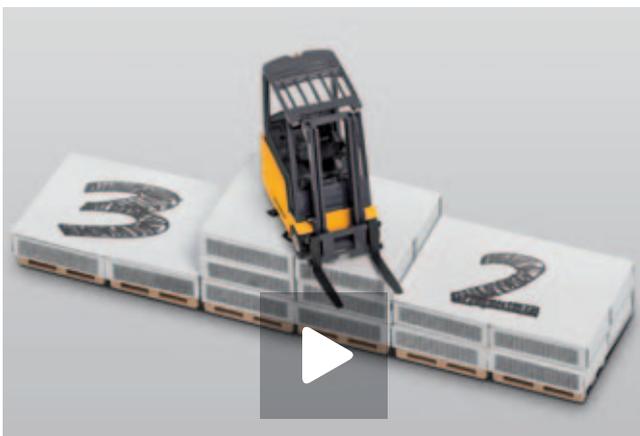
High torque values, no drops in torque level and no loss of speed result in dynamic travel and maximum throughput. The advantage: Significantly faster goods handling and even the potential of a reduction in your truck fleet.

## More application areas

Our IP 54 rated electric motors permit the trucks to be used in environments that were once the sole domain of IC engine trucks. Our EFG Series 2 and 3 trucks are not affected by dust, water or chemicals.

## Electric steering

- Fewer steering wheel turns
- Smaller steering wheel
- Minimum effort
- Narrow steering column creates more legroom
- No hydraulic noise



## EFG 216:

### The most efficient in its class

Four trucks. 10 kWh for each.

Which one makes the most of it?

You'll find the answer on YouTube:



[www.youtube.com/jungheinrichag](http://www.youtube.com/jungheinrichag)



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EFG 216k

# The advantage: Our innovative battery management.



## **Two-shift operation without having to change the battery**

- Two normal shift operations without having to recharge, thanks to greater energy efficiency
- Easy battery charging/servicing via side door opening
- Easy battery handling by side battery removal
- Battery retainer prevents travelling with unsecured battery

## **Three-shift operation with SnapFit battery replacement**

Our EFG Series 2 and 3 trucks also offer cost-effective battery handling solutions to suit individual requirements:

- Flexible side removal of any size of battery using lift truck or crane
- Easy, intuitive replacement method with little effort required
- Safe battery removal through on-board guidance, limit position retainer and fastening by means of SnapFit



Two side foot notches to open/close the connection with the battery trolley.

#### **SnapFit battery removal system (option)**

The reliable, cost-effective and user-friendly SnapFit battery replacement system is easy to use with any of our pedestrian pallet trucks. The universal adapter for 48 and 80-volt batteries can be simply attached and removed again without the aid of a tool.



8

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# The advantage: Our productivity-enhancing ergonomics.

## Sitting comfortably equals working better

- Low entry height and level cab floor
- Electric steering and a narrow steering column create more legroom
- The infinitely and intuitively adjustable steering column and armrest allow for adjustment to suit all operator sizes.
- Minimal vibrations through cushioned 'floating cab' operator position module
- Automotive type pedals (twin pedal optional)
- Extremely low noise levels
- Ergonomic operation
- Good visibility when reversing thanks to 15° seat swivel to the right (EFG 220 and EFG 316–320)

## What the EU has to say

To protect your operators, the European Union has issued the "2002/44/EC Vibrations" employer directive. With this, the EU governs the overall volume of 'human vibrations' to which an employee may be subjected per day at the workplace.

The employer is solely responsible for compliance. However, we can also be a strong partner here. By providing low-vibration trucks which offer increased productivity through longer travel times without exceeding limits.







### **SOLO-PILOT integrated in the armrest:**

#### **Fingertip control**

- SOLO-PILOT attached to the seat, accompanying the arm movement for a relaxed posture
- Individually adjustable armrest, irrespective of the seat position
- Precise control of travel and lift functions by fingertip control alone, no hand movement required
- Finger levers have the same function as conventional hand levers
- Comfortable resting position for ball of thumb
- Combination of all hydraulic functions plus the horn and travel direction switch in a main control unit



### **MULTI-PILOT control lever**

All hydraulic functions plus selection of travel direction and the horn can be controlled by the Jungheinrich MULTI-PILOT. All of this with a minimum of effort and using just one hand, without having to reach – the arm rests comfortably on the horizontal / vertically adjustable armrest.

The result: Quicker and more precise stacking / retrieval operations plus manoeuvring and transporting are child's play for your operator. It is even possible to perform two operations simultaneously, such as lifting and reverse tilt.

# The advantage: Our well conceived safety concept.

## Safe cornering with Curve Control/Drive Control

Curve Control automatically reduces the travel speed when cornering, as a function of the steer angle. Electric braking applies irrespective of the travel program selected and keeps the centrifugal forces acting on the operator, load and truck to a consistently low level. The advantage: The risk of a hazardous build-up of forces and even your truck tipping over can be effectively reduced.

Drive Control (optional) also reduces the travel speed from a specific lift height.

## Work safety with Lift Control (optional)

In addition to the safety features of Drive Control, Lift Control offers:

- Automatic mast tilt speed reduction from a specific lift height
- Tilt angle display

## Access Control (optional)

Access Control only releases your truck for operation when a valid access code is recognised and the 'seat occupied' and belt lock detection systems have been activated in turn.

## Safety on slopes ensured by automatic parking brake

If the operator takes their foot off the accelerator on a ramp, the truck stops automatically without them having to apply the brake. When the truck starts up, the brake is automatically released and the truck moves off carefully without rolling backwards. Advantages: Greater safety and easier handling.

## A choice of operating / travel programs

As numerous as the challenges in daily operation: Five different operating / travel programs offer the ideal versatility to cope with any application in your company.



## Explosion protection for hazardous areas

Many industrial sectors are highly explosive due to flammable gases, fumes, powder or dust. To meet these special requirements and to guarantee safe operation, we can supply explosion-proof electric fork lift trucks in accordance with Directive 94/9/EC (also referred to as ATEX 95).





# Yes or no?

## Investment decisions are simple, but not easy. We compile the facts that make it easier for you:

### **BestInvest**

Our electric three-wheel / four-wheel fork lift trucks will reduce your long-term operating costs by up to 20%. With a wide range of technological and ergonomic advantages that reduce all of the expenses making up the Total Cost of Operations (TCO) to minimum levels, from purchase to disposal. We call this promise BestInvest. It helps you transform your costs into profitable investments. So that you can make the best investment decision.

### **The right racking for the right truck**

We can provide you with the complete solution for this: Integrated warehouse planning, where the racking and the trucks work 'hand in hand' as parts of a single system. From project planning through CAD drafting to handover. From modular racking systems through system platforms to high-bay racking. From consultancy through installation to service. We offer a one-stop shop.

### **A dedicated service network**

Service engineers are available countrywide in various locations. Each one a Jungheinrich professional: Mechanical engineer, electrician, electronic and hydraulic specialist all rolled into one. And they'll generally be with you within four hours.

### **In-house financial services**

We offer you a wide range of tailored solutions to suit your commercial, financial and balance sheet requirements – even if these should change over time. This will allow you to keep on the move and respond flexibly. Your consultant will be happy to work out which solution is best suited to your needs.

### **25% less CO<sub>2</sub> in ten years**

We have drastically reduced the CO<sub>2</sub> emissions of our entire truck range over the last ten years – and by more than 25% for the EFG series. We have done this with a series of technological innovations which are currently setting the standards for CO<sub>2</sub> emissions.

### **Reduced CO<sub>2</sub> emissions also mean reduced energy costs**

Our entire product cycle now features technical innovations for reducing CO<sub>2</sub> emissions, from manufacturing through usage to reconditioning. And our high-tech solutions are really setting standards in the usage phase which is where 80-90% of all emissions occur. You can easily use this Jungheinrich advantage to your benefit, immediately reducing your energy costs considerably while simultaneously achieving maximum throughput rates. For further information, visit [www.jungheinrich.com/oekobilanz](http://www.jungheinrich.com/oekobilanz)

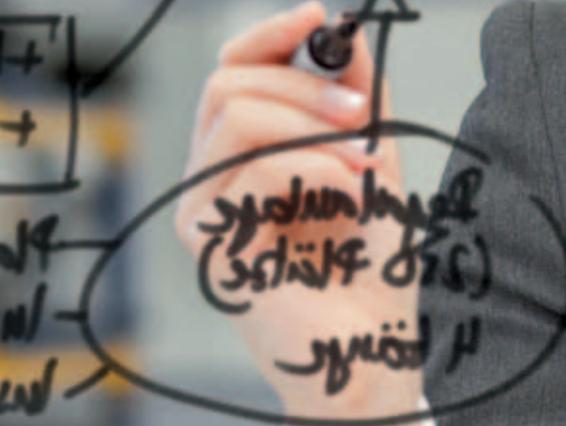
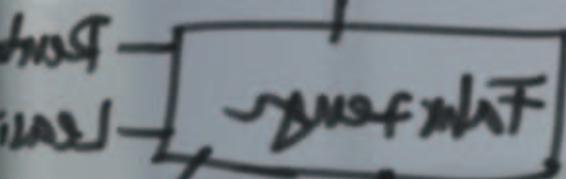
### **TÜV-certified product life-cycle assessment**

TÜV-Nord has systematically analysed the life-cycle assessment and certified it in accordance with DIN EN ISO 14040, giving us the environmental rating "Geprüfte Produkt-Ökobilanz" [Certified Product Life-cycle Assessment].





Oft. beibehalten?





Jungheinrich  
Plants, Sales and  
Services Europe  
ISO 9001/ISO14001



Jungheinrich trucks  
conform to the European  
Safety Requirements.

**Jungheinrich**  
**Vertrieb Deutschland AG & Co. KG**

Am Stadtrand 35  
D-22047 Hamburg  
Telephone +49 40 6948-0  
Telefax +49 40 6948-1777

info@jungheinrich.com  
www.jungheinrich.com

**JUNGHEINRICH**  
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