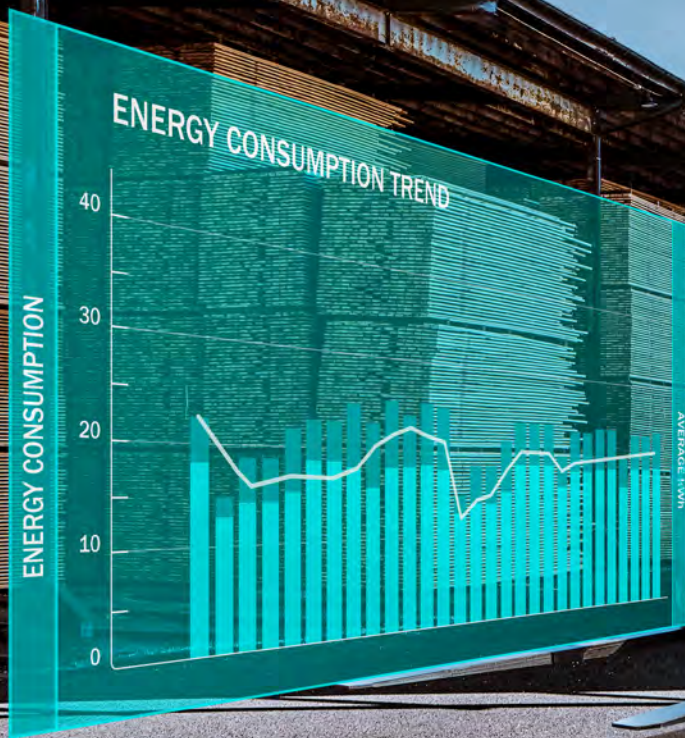


# Electric Forklifts for Your World





# Forklifts go electric



BATTERY  
CHARGE



STATUS

3h 22m  
TIME REMAINING



Konecranes has more than six decades of experience designing and building forklifts for your world. In all that time, technology has come a long way. One of our proudest innovations is the Konecranes E-VER electric forklift, for the ultimate in eco-efficiency.

The Konecranes E-VER electric forklift combines the long-lasting, heavy-duty Konecranes machinery you know with the latest eco-efficient features to enhance your productivity, reduce energy consumption, and prevent exhaust emissions.

#### ECOLIFTING 2.0

In recent years, Konecranes has been developing Ecolifting solutions to reduce fossil fuel emissions without any loss in performance.

The E-VER has a fully electric driveline. More efficient than a diesel engine, it can eliminate fossil fuels from your operation and cut your energy consumption by up to 70%.

With outstanding operator performance and maintenance-friendly design, this electric forklift is a future-proof concept in lifting equipment for your world.



## KONECRANES ecolifting

### Zero Emissions – Outstanding Performance



#### Responsible

Zero CO<sub>2</sub> tailpipe emissions into the atmosphere. Sustainable for your people, their workplace and the environment.



#### Safe

Drivers have high visibility in all directions; following the latest industrial electric safety regulations. Battery protected from temperature changes and accidental collision.



#### Energy efficient

Modern technology with high efficiency and low energy losses. Same battery and standardized recharging across the entire E-VER family.



#### Superior driving experience

Fast, powerful and dynamic movement. Spacious, comfortable and quiet cabin environment, with minimal vibration.



#### Lifetime Advantage

Identical components and technology across the entire range. Reduced maintenance costs due to fewer moving parts and components to be replaced.

# Driven by electrical efficiency

While your world just got a little better, forever just got bigger.

With zero fossil fuels and zero tailpipe emissions, the Konecranes E-VER electric forklift significantly decreases your energy costs and reduces your environmental impact while improving your drivers' comfort and providing you with excellent performance.

Comfort and safety are further enhanced by ergonomic controls, high visibility and smooth movement with less noise and vibration.

It uses a lithium-ion (Li-ion) battery that powers highly efficient electric motors for traction and hydraulics. Following the common charging standards CCS1 and CCS2, battery charging can take less than an hour – as short as the average lunch break.

The E-VER is built in easy-access modules with the same sturdy frame design, steer axle and lifting equipment as a diesel forklift. With fewer moving parts and no gearbox, maintenance costs you less time and money.

## A wise choice for:

- indoor and outdoor operations
- use near residential areas
- your company sustainability profile
- local, regional and global legislation and standards
- supporting health and safety in the workplace

## PROVEN TECHNOLOGY

The electric forklift uses extensive Konecranes expertise well-tried and -tested in the field.

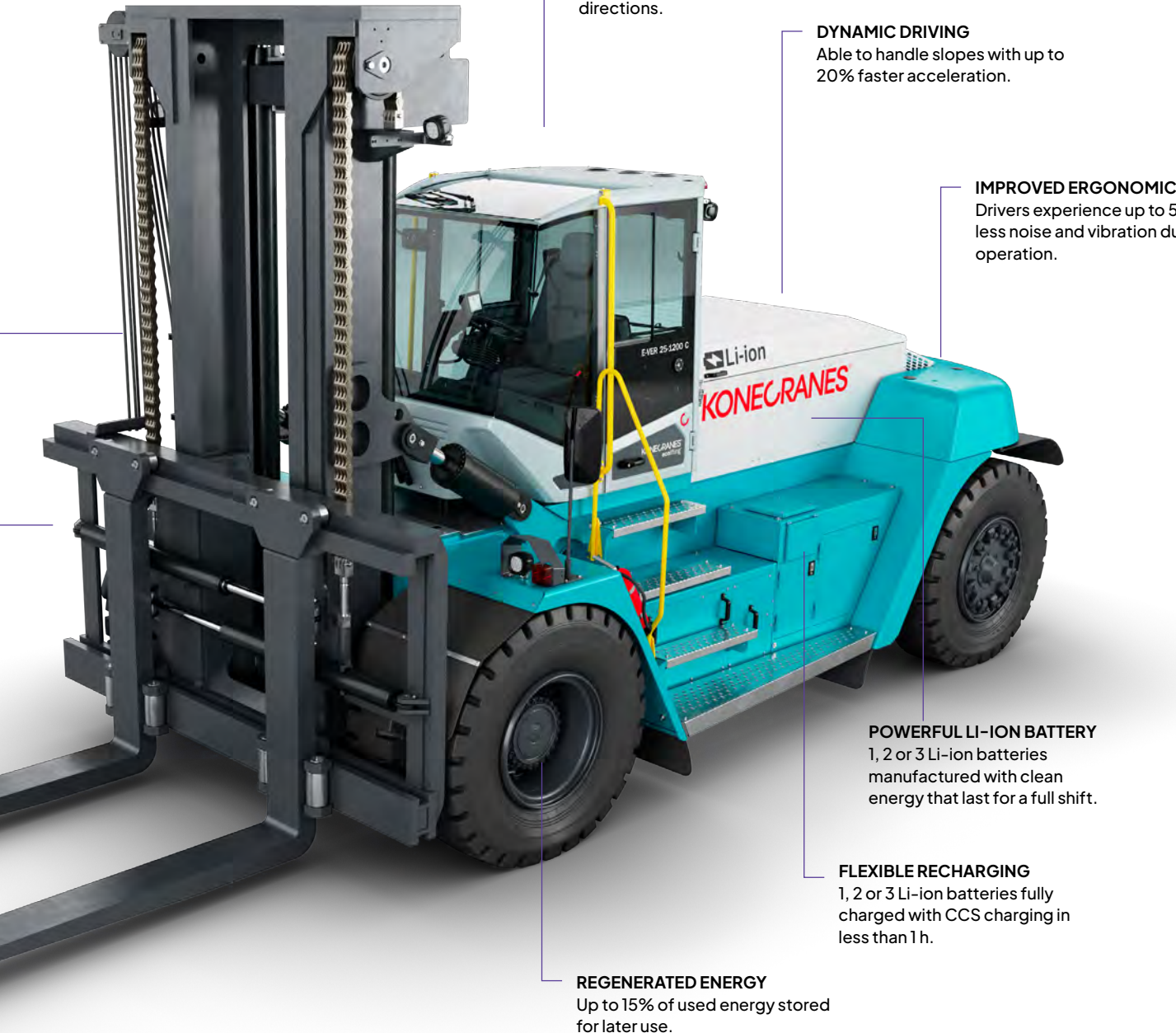
## LIFTING SPEED

The same lifting mechanisms as a diesel forklift operate up to 25% faster.

## LIFTING ATTACHMENTS

A range of different attachments for every lifting need.



**OPTIMA CABIN**

The safest, quietest and roomiest cabin in the industry with ergonomic controls in a comfortable working environment. Unobstructed visibility in all directions.

**DYNAMIC DRIVING**

Able to handle slopes with up to 20% faster acceleration.

**IMPROVED ERGONOMICS**

Drivers experience up to 50% less noise and vibration during operation.

**POWERFUL LI-ION BATTERY**

1, 2 or 3 Li-ion batteries manufactured with clean energy that last for a full shift.

**FLEXIBLE RECHARGING**

1, 2 or 3 Li-ion batteries fully charged with CCS charging in less than 1 h.

**REGENERATED ENERGY**

Up to 15% of used energy stored for later use.

A well-used forklift operates for an average of 2,000 hours a year. Make it electric, and you just removed exhaust emissions equal to 15 combustion cars driving 15,000 km a year each.

# Combining ergonomics with maximized safety

The Konecranes E-VER electric forklift includes features that help drivers feel confident, safe and ready for whatever the day might bring.

## An enhanced driving experience

The Konecranes E-VER is both enjoyable and efficient to operate. Drivers can go from standstill to full motor torque instantly, with a smooth and fast acceleration and lift. Optimized weight distribution offers easy maneuverability and independent powered functions ensure no mechanical delays, so peak performance is always available, whenever you need it.

Whether traveling or lifting, the electric forklift keeps noise and vibrations to a minimum. A quiet and steady vehicle means less stress and fatigue for your drivers.

The cabin is spacious, featuring high visibility and outstanding driver comfort. Ergonomic controls include a touch screen, easy-access instrumentation, and an adjustable HVAC environment powered by an electric compressor. A preset cabin climate adjusts while charging without reducing battery reserves.

## Safety-first culture

The Konecranes E-VER battery doesn't release any emissions during operations or while charging and features three different control systems to maximize safety when in use:

- **Automatic disconnection** cuts electric current while the vehicle is charging;
- **Battery cell management** maximizes battery lifetime and efficiency;
- **Remote control** with automatic warnings when issues arise.

A vehicle powered by a Li-ion battery is less likely to catch fire due to damage in a collision because of its chemical composition. In addition, a protective cage around the battery and a lack of hot ignition surfaces make it even safer.

With Li-ion batteries, control options and automatic warning signals, the Konecranes E-VER electric forklift maximizes safety for drivers, nearby personnel and the loads it carries.

Low battery positioning ensures no obstruction to visibility in any direction around the truck, even while reversing.

The E-VER is in full compliance with the EU Machinery Directive 2006/42/EC.





Moelven Edanesågen uses forklifts to move raw wood and products around the sawmill in Edane, western Sweden. The Konecranes E-VER electric forklift aligns perfectly with Moelven's sustainability goals, because it cuts energy consumption and produces no local emissions.

# Battery technology

The Konecranes E-VER electric forklift is powered by one, two or three Li-ion battery packs.

Battery packs are an efficient and flexible energy source. Thanks to the fully modular design of the truck, you can choose the battery setup that best suits your needs. The main advantages of Li-ion batteries are high energy in the battery, low energy losses and the ability to fast charge, indoors or outdoors.

In average conditions, each battery can last from 5 to 10 years of operation. Opportunity charging reduces the need for a full charge and extends battery life.

A battery management system (BMS) constantly monitors battery condition and a thermal management system (TMS) always keeps it at the right temperature. Optimal battery health maximizes battery lifetime.

The latest BMS software allows operators to pre-heat or -cool the E-VER when connected to the grid and have it ready for operations whenever needed.

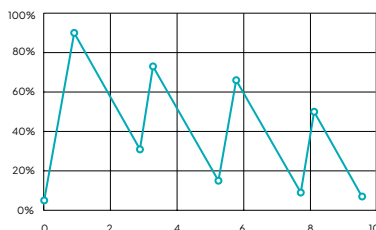
## How is a Li-ion battery different from lead acid?

- Fast charge option
- Up to three times longer lifetime
- Almost flat discharge curve, with full power available until the battery is empty
- Virtually no maintenance
- No dedicated charging facility required - can be indoor



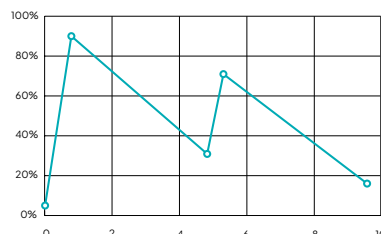
### One battery pack

- Power needed for fast charging: 75 kW\*
- Charging time: approx. 50 min
- Operational cycle: shorter operation time before charging stops
- Recommended for light application and operation



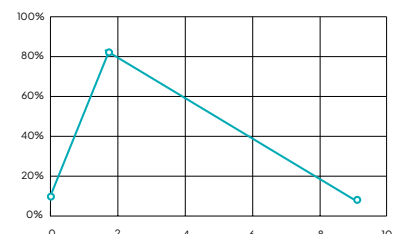
### Two battery packs

- Power needed for fast charging: 150 kW\*
- Charging time: approx. 50 min
- Operational cycle: longer operation time between charging stops
- Standard for 18–25 ton range and recommended for 10–18 ton range in case of multi-shift or heavy operation



### Three battery packs

- Power needed for fast charging: 250 kW\*
- Charging time: approx. 50 min
- Operational cycle: even longer operation time between charging stops
- Optional for 18–25 ton range and strongly recommended in multiple-shift or heavy operation



\*might be reduced at high and low temperature



# Charging infrastructure

Improve your operational efficiency by optimizing your charging infrastructure.

You must consider the charging infrastructure at your facility and the capacity of the local power grid before buying an electric lift truck. You need charging stations equipped with CCS1 or CCS2 charge plugs (the same standard as the automotive industry) and a local power grid with the capacity to handle your slow or fast charging requirements.

## **Add battery charging to your daily operations**

Charging a battery takes longer than filling a fuel tank with diesel. But after connecting the charging cable, it's fully automatic, leaving the driver free for other tasks. Fast charging is one of the main advantages of Li-ion batteries. From an empty battery, a full charge takes about 50 minutes. To optimize battery usage and lifetime, use opportunity charging in work hours during the day and charge more slowly in slow periods at night.



## **Where should chargers be located?**

Li-ion battery chargers can be anywhere convenient in your yard, once you have determined the traveling paths and working areas of your electric forklifts. The Konecranes Path Tracker function, available with TRUCONNECT Remote Monitoring, can help you plan your charging locations.

# Get your Lifetime Advantage

After you purchase a Konecranes lift truck, we offer you far more than just after-sales service. You can get resources for truck maintenance, fleet management, investment growth and safety enhancements, all backed up by a dependable support network.

Because this is available to you for the entire life cycle of your Konecranes lift trucks, we call it the Konecranes Lifetime Advantage. It's a better experience.



#### **A smarter maintenance experience**

A clear view leads to smart maintenance and a lifetime of reliable performance.



#### **A wiser management experience**

Accurate, up-to-date knowledge means smarter decisions and a lifetime of fleet efficiency.



#### **A cleverer investment experience**

The longer you stay with us, the better your investment will look.



#### **A safer driving experience**

Lifetime Advantage prioritizes safety in and around Konecranes lift trucks.



#### **A dependable team with experience**

For the entire life cycle of your equipment, we will always be at your side.

# Less parts, more uptime

With fewer moving parts, your Konecranes E-VER costs far less money and time when you need spare parts or service.

Fewer mechanical components and common electrical modules make service on an electric forklift easy. Since no heat comes from the engine and there's less vibration, some components will last longer. When you have automatic diagnostics, a maintenance-free battery and no need to dispose of engine or transmission oil, you reduce waste, you don't have to train your technicians in high voltage electrics and you don't need to replace the battery. You can use the time you save to keep your forklifts productive.

## Electric efficiency

The electric driveline adds even more efficiency through a regenerative system that collects and adds braking energy to the battery as it slows the vehicle. Depending on battery setup and operations, 5 to 15% of used energy can be returned to the battery.

### As a result:

- braking is more efficient,
- there is less wear and tear,
- brake discs require less maintenance.



**23 %**

Considering just the engine and transmission, the electric forklift is up to 23% cheaper to service than a diesel lift truck.



# Smart Connected Lift Trucks

Things can change rapidly in a busy operation, so you need to know what's happening right now. Smart Connected Lift Trucks help you keep up to date and get maximum value from your Konecranes E-VER electric forklifts.



## Monitor the Key parameters

- Battery status and charging time
- Energy consumption and utilization per running hour
- Energy recovered from braking per running hour
- All data transfer is fully secure following ISO 27001
- Real-time data 24/7 on every truck in the fleet, with analytics on demand and integration capability from other systems

Using the truck's sensors and a high-speed modem, you will gain insights into your equipment to guide your actions and boost your operational efficiency and productivity. In effect, a unique digital shell keeps a network of your Konecranes lift trucks secure around our products and services, and gives you the freedom to develop new business models for value-producing opportunities in your business.



# Return on your investment

In the short term, your outlay for an electric forklift is offset by big savings in fuel consumption – in other words, the cost of energy.

Both economically and environmentally beneficial, maintenance is also easy. With no diesel engine and power-shift transmission in need of oils and filters, there are fewer complex mechanical components to service, so you have less downtime and lower operating expenses.

In the long term, it's worth making your entire lift truck fleet electric, because as efficiency goes up, costs go down and the size of your carbon footprint shrinks. Ask your distributor how Konecranes can provide extensive support for the necessary operational changes.

The E-VER electric forklift – your next step into the future with Konecranes.

## Real benefits of electric motors

- About 90% of electrical energy is converted to usable work
- Give off less heat and have less mechanical complexity – reducing the need for maintenance

## Never-ending battery warranty with Battery as a Service (BaaS)

Set up a pay-per-use battery service subscription with Konecranes for all the functionality and services of a guaranteed battery with no advance payment.

It's an economic way to power your Konecranes E-VER with a reliable power source at a competitive price.

## E-VER 10 TO 25 TONS



MODEL NAME	CAPACITY	WHEELBASE
E-VER 10-600 C	10 tons at 600 mm	3000 mm
E-VER 12-600 C	12 tons at 600 mm	3000 mm
E-VER 10-1200 C	10 tons at 1200 mm	3250 mm
E-VER 13.6-600 C	13.6 tons at 600 mm	3250 mm
E-VER 12-1200 C	12 tons at 1200 mm	3500 mm
E-VER 16-600 C	16 tons at 600 mm	3500 mm
E-VER 16-900 C	16 tons at 900 mm	3500 mm
E-VER 15-1200 C	15 tons at 1200 mm	3750 mm
E-VER 16-1200 C	16 tons at 1200 mm	3750 mm
E-VER 17-1200 C	17 tons at 1200 mm	3750 mm
E-VER 18-600 C	18 tons at 600 mm	3750 mm
E-VER 18-900 C	18 tons at 900 mm	3750 mm
E-VER 18-1200 C	18 tons at 1200 mm	4000 mm
E-VER 20-1200 C	20 tons at 1200 mm	4000 mm
E-VER 22-1200 C	22 tons at 1200 mm	4250 mm
E-VER 25-1200 C	25 tons at 1200 mm	4250 mm

# Attachments

The Konecranes E-VER electric forklift can utilize a wide range of lifting attachments for your needs. You can choose anything from different masts and fork/carriage combinations, to fork/shaft systems, coils and clamps.



## FORK AND CARRIAGE COMBINATIONS



Standard carriage with integrated forks, sideshift, and fork positioning



Carriage with kissing forks for steel handling



Carriage with reinforced forks for round cargo

## FORKS AND FORK SHAFT SYSTEMS (FSS)



Standard fork

XL fork

Different cross-sections, lengths, tapering, and reinforcements



Fork shaft system hook-type



Fork shaft system, pin-type

## COIL RAMS



Single coil ram with fork shaft



Double coil ram with fork shaft



Single coil ram, integral version



## FORK AND CARRIAGE COMBINATIONS



Duplex, 2-stage, no freelift



Duplex, 2-stage with freelift



Triplex, 3-stage with freelift



Carriage with one leveling fork (up/down) for sensitive cargo like sawmill products



Carriage with center leveling (2 forks) for sensitive cargo



Carriage with fork shaft system (multi-function), pintype and hook-type versions

## ATTACHMENTS - ENGINEERING TO ORDER



Different container spreaders with inverted forks and fork shafts



Multiple paper roll clamp (single or double)



Fork rotator carriage



Concrete tube clamp (different versions)


## Made to order

Please contact your sales representative to discuss any special lifting requirements you may have. If you can't find what you need in the catalog, Konecranes can customize a forklift attachment for the unique conditions of your world.

**Contact us**  
[kclifttrucks.com](http://kclifttrucks.com)



Konecranes is a global leader in material handling solutions, serving a broad range of customers across multiple industries. We consistently set the industry benchmark, from everyday improvements to the breakthroughs at moments that matter most, because we know we can always find a safer, more productive and sustainable way. That's why, with around 16,600 professionals in over 50 countries, Konecranes is trusted every day to lift, handle and move what the world needs. In 2023, Group sales totalled EUR 4.0 billion. Konecranes shares are listed on Nasdaq Helsinki (symbol: KCR).

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