

Made-to-measure.  
Bespoke work for your warehouse:  
The new V modular order picker.

Linde Material Handling

*Linde*



# Optimise your warehouse management concept with a Linde order picker.

Handling the ever-increasing volume of goods faster and in a more flexible manner is critical for the success of modern warehouse systems. In the face of rising warehousing costs, the economic advantage depends more and more on the performance level of your logistics. And this is where Linde Material Handling can give your company the competitive edge.

Order picking solutions are becoming increasingly important when it comes to warehouse technology, and associated requirements are changing: Different buying behaviour and new distribution channels, such as e-commerce, are resulting in smaller order picking volumes and orders, and at the same time demand for short cycle times and increased picking accuracy. Order picking areas are always getting bigger, and as storage space is limited, these areas often expand upwards.

Linde order pickers allow you to increase your productivity. The new truck concept behind the V modular order picker allows you to fulfil orders quickly, efficiently and accurately.





## Modular concept.

The variety of different warehouse environments and goods, as well as the wide range of order picking methods in use, mean that individual solutions are required. With the V modular order picker, Linde is offering a truck concept that can be tailored to your exact requirements. The V modular order picker is configured and produced in line with customer specifications.

## Ergonomics.

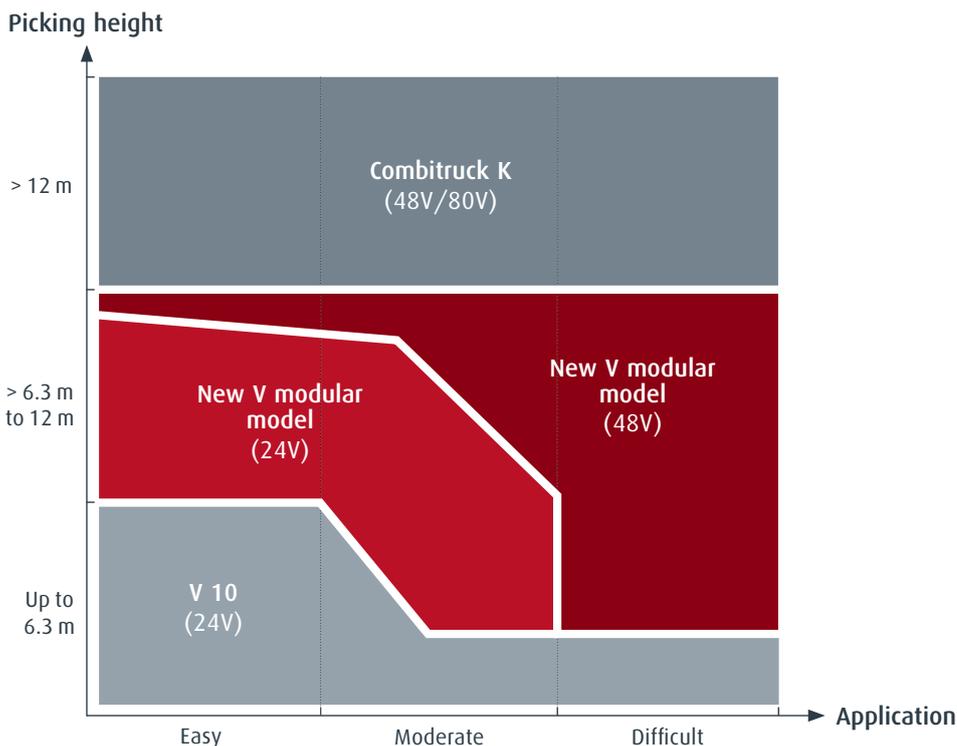
Linde order pickers are perfectly co-ordinated to suit each driver. The highest level of technical performance is combined with a consistently user-friendly design, meaning the V modular order picker allows the operator to focus on the task at hand.

**Engineered for your performance**

# Configure the exact order picker that you need.

The V modular order picker is suitable for picking items at all shelf levels and can be used for a range of different applications, enabling work close to the ground or at a picking height of up to 12 metres.

Linde specialists develop the best design for each application and select the appropriate modules from a wide range of unique features, such as cab versions, power packages, lift masts, batteries and chassis sizes. A production configurator makes it easy to find the optimum solution for each customer from the many equipment variants available.



## Combitruck K (48V/80V)

- For easy to difficult applications
- Picking height of over 12,000 mm
- Storage of pallets weighing up to 1500 kg in very narrow aisles

## New V modular (48V)

- For moderate to difficult applications
- Picking height of max. 12,000 mm
- 1200 kg at a load centre of gravity of 400 mm
- For crates with a frame depth of up to 1100 mm
- Load wheel brakes limit the maximum speed to 13 km/h

## New V modular (24V)

- For easy to moderate applications
- Picking height of max. 1050 mm
- 1000 kg at a load centre of gravity of 400 mm

## V10 (24V)

- For easy to moderate applications
- Picking height of max. 6350 mm
- 1000 kg at a load centre of gravity of 400 mm



#### Masts

The ideal mast depends on your application - do you store your goods in medium height or up to 12 m. Linde has mast solutions for every application.



#### Ten different cabin widths

Designed to ensure greater freedom of movement and ensure more space. Whether your operator needs to walk on the pallet or needs a wider cab for bulky goods: Whatever your requirement is, the truck can be equipped with a cabin that meets your requirement.



#### Control concept

The control panel can be configured to the operators preferred driving habits: On load side, on mast side or even both.



#### The optimal chassis size

Compared with conventional order pickers, Linde trucks are extremely robust and torsion resistant. The wide range of chassis widths always gives the truck the perfect stable base.



#### Load handling

No matter if a supplementary lift is needed or a walk on solution is preferred: The Linde V modular order picker offers the perfect solution to meet your requirements.



#### Batteries

Duration of normal working shifts, weight of loads, throughput ratios: all these are factors that define the optimum battery capacity. Whatever your standards are, we can equip your truck with exactly the right battery for you.

# Built to your specifications.

Every warehouse concept represents different challenges. Linde responds to these challenges with the V modular order picker.

## Design

*Different mast designs, cab and chassis widths, battery trays and different load handling and truck guidance options ensure that a solution that is perfectly suited to your warehouse environment can be created.*

The options include eight chassis widths ranging from 880 mm to 1580 mm, ten cab widths ranging from 900 mm to 1800 mm, plus standard masts or triplex masts with a maximum picking height of 12,000 mm. Operation is possible on the load side or the mast side, and two-sided operation is also an option to enable maximum flexibility.

The fork adjustment feature is available in addition to rigid forks, and the V modular order picker can be equipped with an accessible pallet, an auxiliary lift or rigid fork carriages.

## Power packages

*For maximum efficiency, tailor your choice of traction motors, lift motors and batteries to suit the intended application of the truck.*

Linde offers different battery capacities to suit the 24-volt and 48-volt motors: The available variants include a 420-Ah to 930-Ah (48-V) version and an 840-Ah to 1120-Ah (24-V) version.

## Equipment

*User-friendliness is all about small details – comfort and ergonomics enable better order picking performance.*

Ergonomic equipment variants such as tilting order picking barriers, shelves and a lean-on support ensure that the driver is fatigued as little as possible by the work and can therefore deliver the best performance for a long period. A holding fixture that can be adjusted as required allows parts lists and electronic devices like data terminals to be positioned conveniently within the cab. The driver's cab features a suspension system and protects the driver against strain from vibrations.

## Occupational safety

*Knowing what's going on – for enhanced safety and less damage.*

Sensors on the V modular order picker detect rails or induction loops embedded in the ground to help guide the truck along the aisles.

RFID transponders, magnets and reflectors also enhance safety: These devices initiate an automatic braking action at the end of the aisle and the aisle detection function disables manual steering in the truck, ensuring that activities such as lifting and driving are conducted at the highest performance level.

A mobile personal protection system and aisle safety assistant are also available as options. The aisle safety assistants allow as many zones as required to be defined in the warehouse – the trucks must then comply with specific restrictions within these zones, such as speed reductions, lift stops, lowering stops, or driving stops.

*Linde RFID transponders are extremely small and can be installed in the ground quickly and easily with a conventional drill. The transponders feature a robust construction and their functionality is not affected by humidity or moisture because they are embedded in the ground. The RFID transponders allow the position of the V modular order picker to be accurately determined in order to navigate the truck.*



## Navigation

In addition to navigating with the help of RFID transponders, the V modular order picker can also be navigated via barcodes. A scanner reads the various barcodes, which is a safe and efficient means of navigating the warehouse environment.



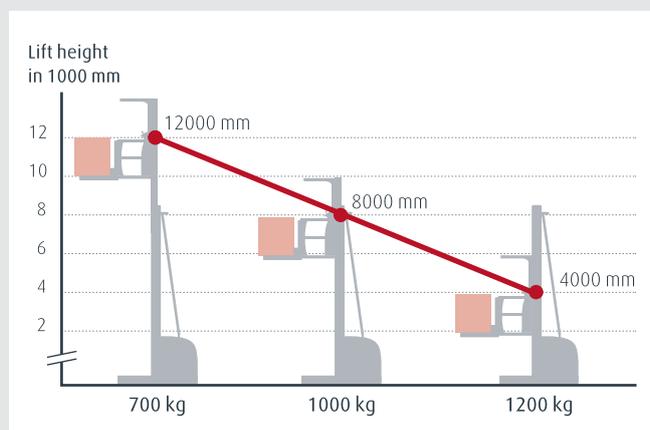


# Performance in a nutshell: Features of the V modular order picker.

**High lift heights.** The V modular vertical order picker enables order picking at a height of up to 12 metres. The robust design guarantees a safe working environment and comfortable order picking method, even at the highest light heights.

**Modular motors.** The traction motors and lift motors are both available as a 24-volt entry-level version, a 48-volt standard version or a 48-volt heavy-duty version with high-performance drives for the most demanding applications.

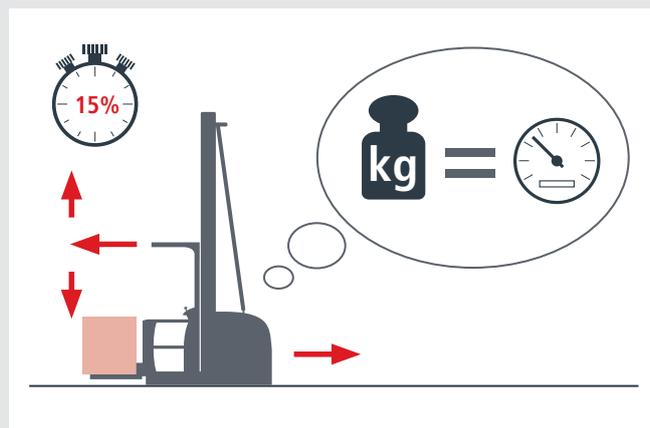
**Productivity through precise control with the Linde System Control (LSC).** If required, trucks from Linde can be equipped with special sensors that detect whether a load is being transported. The Linde System Control works in real time to calculate the optimum vehicle speed based on the weight of the load being transported. Depending on the application conditions, a performance increase of up to 20% can be achieved when trucks are equipped with the LSC and used in compliance with the applicable safety regulations. The additional "Curve Control" function automatically adjusts the speed of the truck when cornering, thereby minimising the risk of the truck tipping.



## LSC standard (3.0) – dynamic residual load capacity

The display always shows the current residual capacity based on the current lift height. The truck speed is also continuously adjusted to the lift height while the truck is in motion.

**The benefits:** Transparency regarding the current truck capacity in line with the lift height, plus a better level of safety.



## LSC performance (3.3) – weight sensor

With the help of the weight sensor, the truck detects the actual weight on the forks and optimises the performance of the truck accordingly. This function gives the driver a complete overview when it comes to the residual load capacity of the truck and the actual load being transported.

**The benefits:** Performance is increased by up to 15% and the truck is always used in a safe manner.

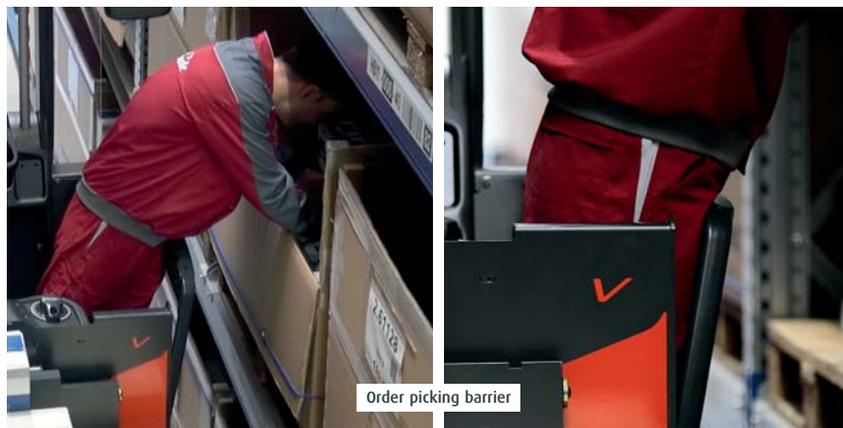


## User-friendly design for ergonomic and effortless operation.

Like any other Linde truck, the V modular order picker is designed such that the driver can work safely and quickly while focusing on the task at hand – a key factor for high productivity levels.

**Barrier design.** The barrier design is based on the idea that "design follows function". The barrier on the V modular order picker combines a harmonious design with features that facilitate the driver's work: Goods can be placed on the flat upper edge of the barrier. The inside of the barrier is bevelled so its contours make the driver's work easier to complete.

**Tilting order picking barrier.** Within an aisle, the barriers fold outwards when the driver leans against them to enable order picking at the side of the truck. The driver can reach further, making it easier to pick goods at the rear of the shelves.



**Compartments and attachments.** The working environment can be tailored to suit different requirements via features such as different shelves, printer interfaces, LED lights or fans, plus 12-V sockets for charging smartphones and connecting other devices.

**Lean-on support.** A lean-on support can be folded out when operating on the load side or on longer order picking runs; the lean-on support helps the driver to maintain the necessary position in a comfortable way.



# Additional functions for greater safety at work.

Linde can make order picking work safer. The V modular order picker offers multiple safety options for improved handling performance and less damage to the truck and goods.

**Aisle safety assistant.** This function allows customers to configure the truck to account for different elements in each aisle – for example a lift stop or drive stop can be triggered in specific areas. This prevents collisions with fixed obstacles such as cross members or sprinkler systems. Speed adjustments in defined areas are also possible.

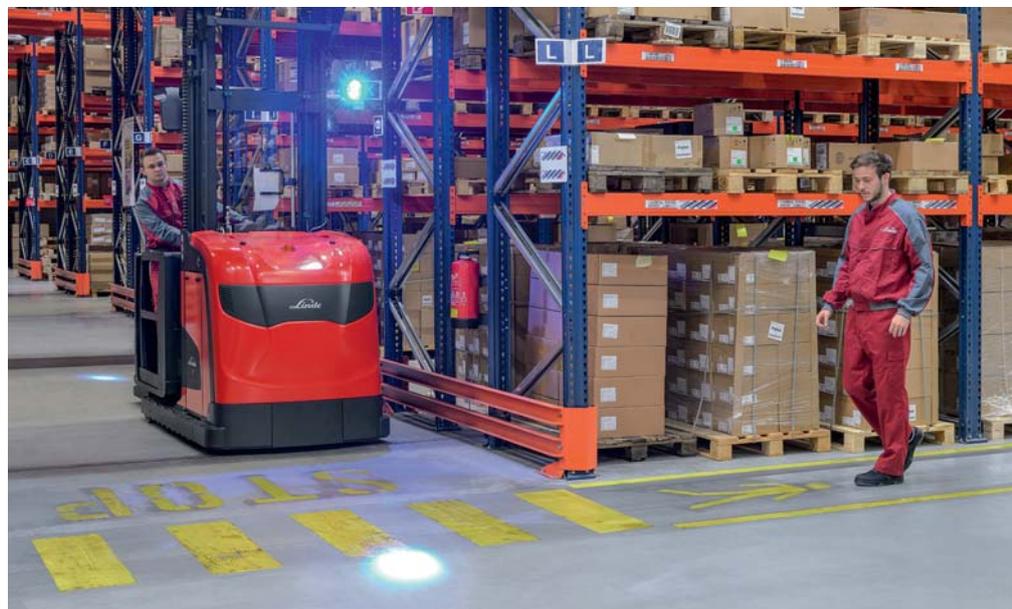
**Warehouse navigation.** The driver receives a picking order via the warehouse management system (WMS). The driver uses the warehouse navigation system to drive to an aisle. Once in the aisle, the driver simply activates the "drive" and "lift" functions. The truck drives independently to the relevant picking area at a speed that has been optimised to suit the required lift height.

**Personal protection system.** The optional personal protection system monitors the truck in all drive directions and stops the vehicle as soon as a pedestrian crosses its path or an obstacle is detected.

**Linde BlueSpot™.** The Linde BlueSpot™, a striking blue LED signal light, is active in both drive directions and visually warns passers-by or other trucks of an approaching truck in a transverse aisle.



Linde BlueSpot™ support mounting



Linde BlueSpot™ in use





## A durable and easy-to-maintain design for maximum efficiency.

Every detail of the V modular order picker, from the robust chassis to the highly torsion-resistant masts and the vibration dampers, is designed to enable a long service life.

The motors in the V modular order pickers are enclosed to protect them from dust and dirt, thereby avoiding unnecessary downtime caused by repairs. The service-friendly design enables easy access to all service parts, such as the drive wheel or CAN bus interface, when maintenance is required.





Linde Material Handling ranks among the world's leading manufacturers. This position has been justly earned. Linde trucks excel not only with their recognized innovative technology but especially their low energy and operating costs, which can be as much as 40% less than competitors.

High quality in production is matched by the standard of the services we provide. With a comprehensive network of local sales partners, we are at your call around the clock and around the world.

**Your local Linde partner** offers you a complete single-source package. From qualified pre-sales consulting through the sale to after-sales service; including finance packages matched to your business requirements. Leasing, rental or hire purchase. Flexibility is maintained in your operational and decision-making processes.

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