

***DIMS***

# **ELECTRIC MULTIDIRECTIONAL SIDELOADER**

**Customised  
solutions for  
your business**



Capacities up to 30 tonnes  
in the standard range,  
higher tonnage available on request

Lift heights up to 16,000 mm (16 m)

***DIMOS***

# **DIMOS -** **EFFICIENT,** **MANOEUVRABLE,** **INDIVIDUAL**

Multidirectional trucks, also known as fourway trucks, form the basis of the DIMOS product portfolio. These multidirectional trucks are mainly used where long and heavy goods have to be transported. The electric multidirectional sideloader also offers a solution to complex handling challenges. DIMOS multidirectional trucks have been used internationally since 1993, with customers



**“Our focus is firmly on longevity and therefore sustainability. While some manufacturers focus on a fast product replacement cycle, at DIMOS we focus on the long and profitable service life of our products”.**

Managing  
Director  
Pascal  
Schütz



opting for both the standard version and customised versions with different lift mast variants, attachments, running gear and frame designs.

DIMOS and therefore our multidirectional trucks are renowned for their flexibility in satisfying customer requirements. The trucks also boast an impressively long service life – some of our trucks have been running since the company was founded in 1993!

# DIMOS *DMS* electric multidirectional sideloader



DMS in narrow aisle applications



DMS with man-up cabin and unique initial lift system

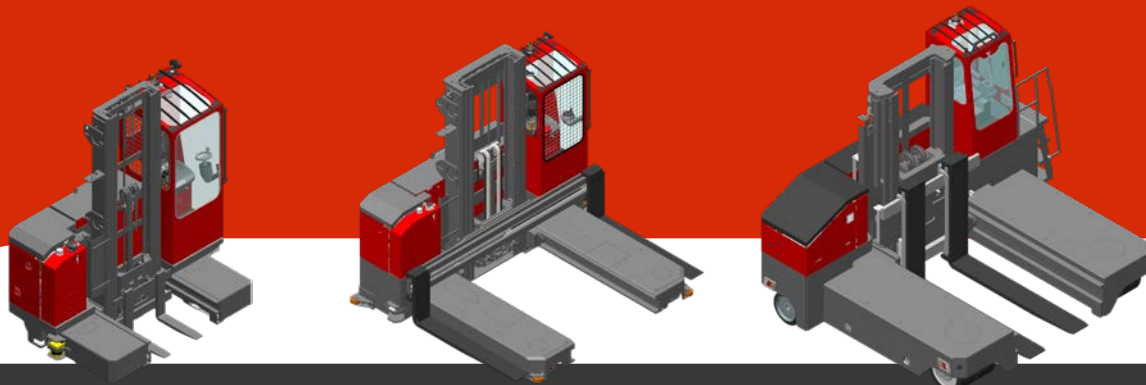


DMS with man-up cabin and removable picking platform



DMS for outdoor use with soft tyres

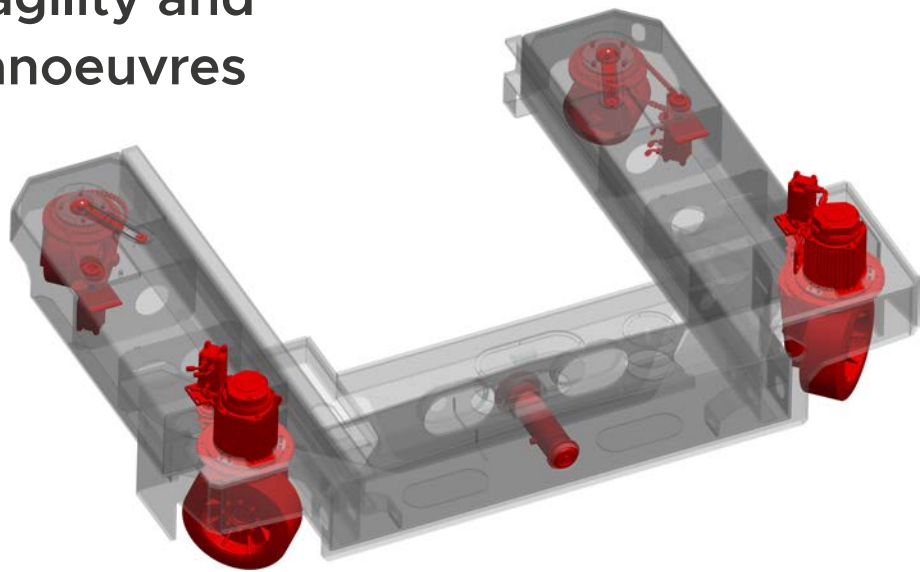
## *DMS* series



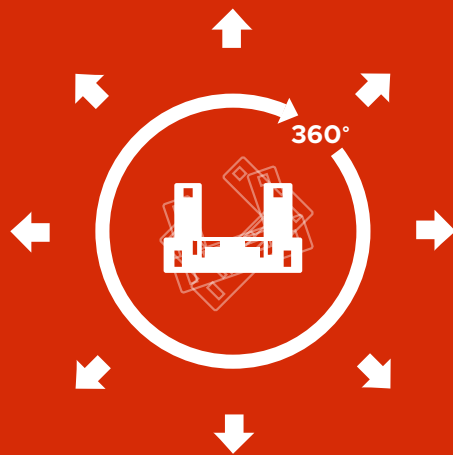
Series	48 V
Capacity (t)	1.5 to 4.5
Series	80 V
Capacity (t)	1.5 to 14.0
Series	96 V
Capacity (t)	15.0 to 30.0

# INTUITIVE MULTIDIRECTIONAL STEERING SYSTEM

Maximum agility and  
smooth manoeuvres



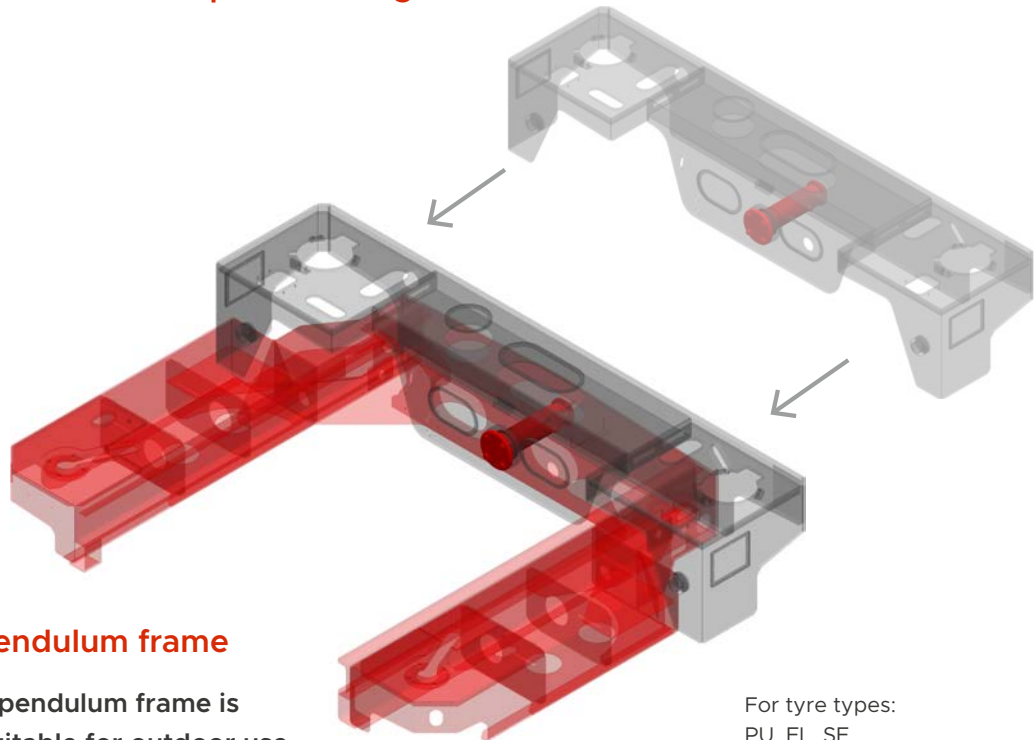
## MULTIDIRECTIONAL STEERING



- Flexible handling and manoeuvring with millimetre precision
- Optical direction selection function for various steering programmes
- Optical wheelbase and steering programme display on the user interface
- Maximum stability with minimum turning radius
- DIMOS multidirectional steering
- Fully electric and hydraulic steering

## The perfect truck frame for customised applications

**DIMOS is the only manufacturer to include four types of frame in its product range**



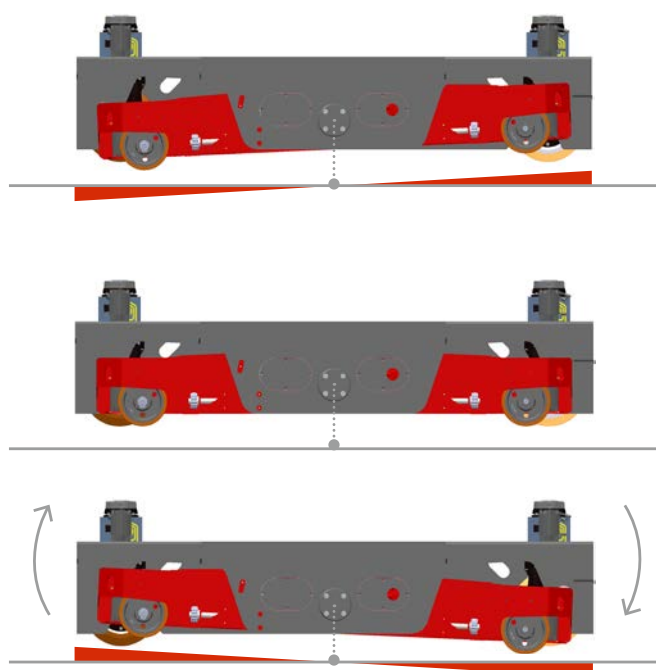
### Two-part pendulum frame

**The two-part pendulum frame is particularly suitable for outdoor use with challenging ground conditions.**

The design combines outstanding spring deflection with high capacity, and a high level of stability with enhanced driving comfort outdoors.

The extensive level compensation minimises stress peaks in the frame construction when driving on challenging surfaces, making the pendulum frame for outdoor use unbeatable in terms of durability, availability and maintenance costs compared to conventional frames and running gear.

For tyre types:  
PU, EL, SE



HG COMMERCIALE (HGC), Switzerland:

# “IMPRESSIVE PERFORMANCE IN OUR WAREHOUSES”



## HGC

“HGC is very satisfied with the 15 trucks currently supplied by DIMOS. The truck is particularly suited to transporting long sawn timbers of up to 14 metres in length in narrow aisles without any problems”.

- Truck types in use:  
DMS 30 – DMS 100
- Operating times:  
800 – 1400 hours/year
- 1-shift operation
- 45 sites in Switzerland,  
a DIMOS truck is in use  
at 15 of these sites

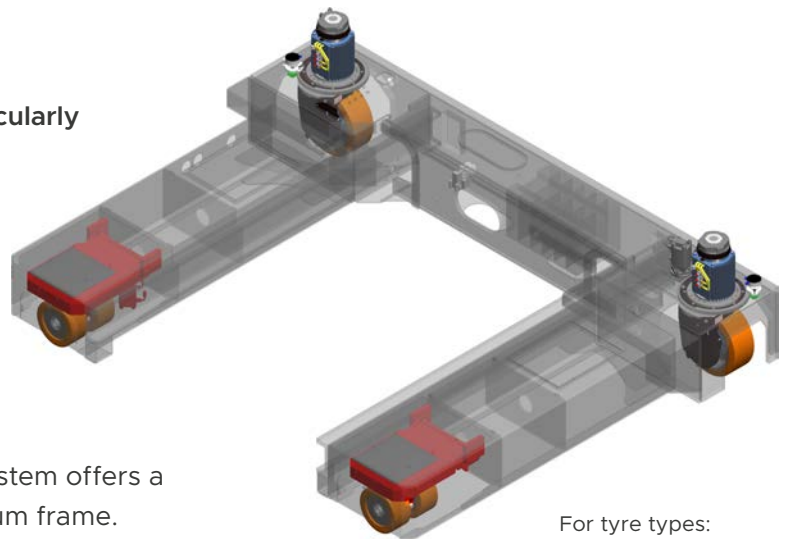
Sales partner for the whole of Switzerland:  
Linde Material Handling Schweiz AG  
[www.linde-mh.ch](http://www.linde-mh.ch)

## Powerbag frame

Our one-piece Powerbag frame is particularly suitable for indoor use as well as for use on concreted and asphalted loading zones.

Thanks to the physical equalisation of the two front load wheels, the frame reacts directly and without delay to any changes in the ground conditions.

The one-piece frame with Powerbag system offers a cost-effective alternative to the pendulum frame. This frame type also boasts level compensation and enhanced driver comfort for indoor areas and paved loading zones.

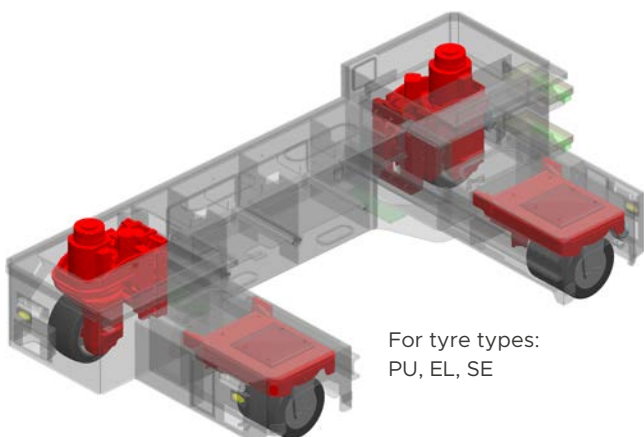


For tyre types:  
PU, EL, SE

## Frame with single-wheel suspension

Our single-wheel suspension frame is based on our one-piece Powerbag frame. Both drive units are physically connected to each other and the two front load wheels are mounted on oscillating bearings.

Thanks to the single-wheel suspension, this one-piece frame is ideal for outdoor use, high speeds and long journeys.



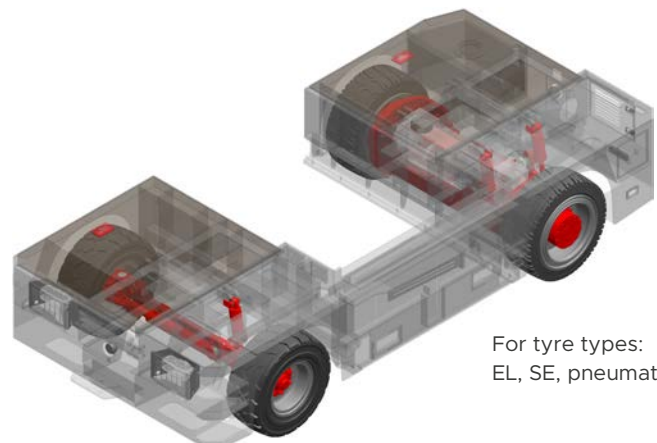
For tyre types:  
PU, EL, SE

## Frame with drive and steering axle

Our frame with classic drive and steering axle is based on the development kit for our "CHARGER" compact forklift truck series. Thanks to its design, the frame type can be used on unpaved and uneven track profiles.

Powerful disc brakes, motors and transmission technology ensure dynamic yet efficient driving performance.

The axle bearing allows the frame to be tilted and provides a high level of driver comfort at high speeds.



For tyre types:  
EL, SE, pneumatics

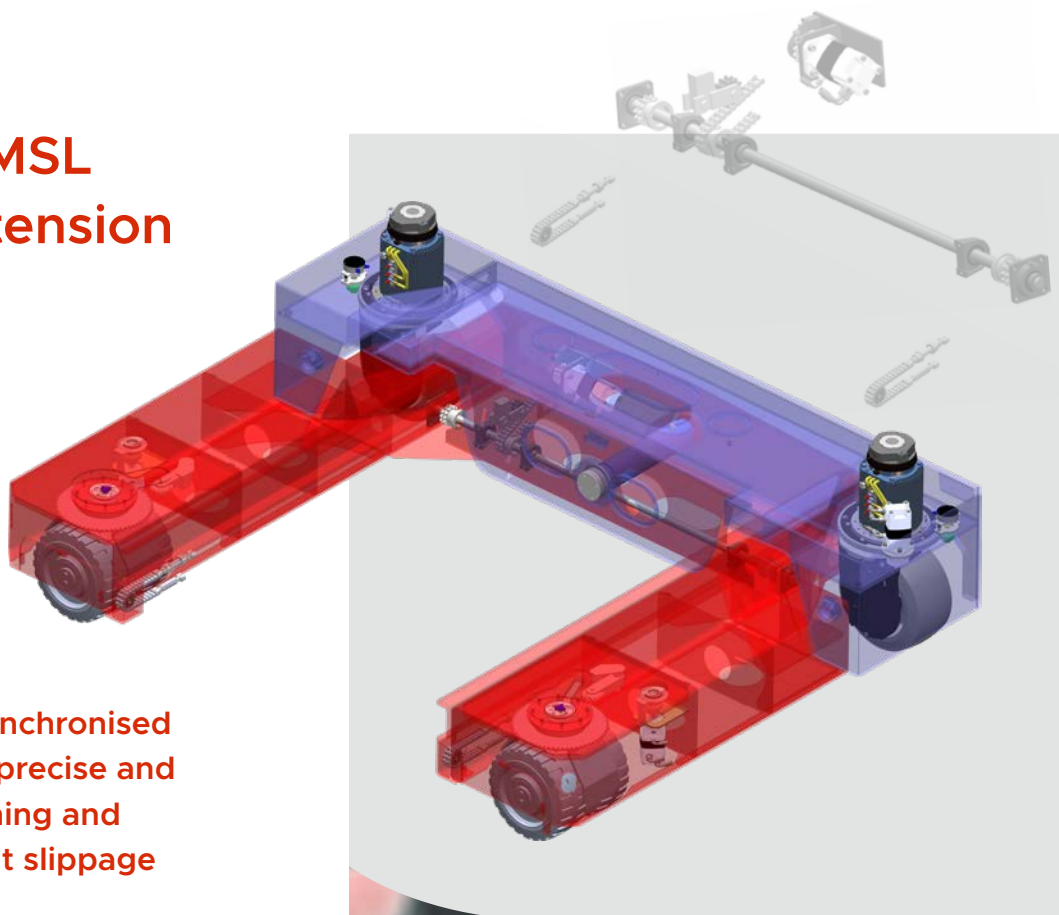
## Unique MSL mast extension system

**Mechanical synchronised  
operation for precise and  
powerful pushing and  
pulling without slippage**

The mast extension of a sideloader is one of the most stressed areas of the machine.

All working movements and thus force systems impact this area.

- ▶ Thanks to our mechanical synchronised operation, we guarantee precise and powerful working impulses combined with high durability, as well as low-wear and low-maintenance use.
- ▶ Thanks to the mechanical synchronised operation, there is no jamming or overloading of the guide rails when pulling or pushing the goods.





## Tyre types

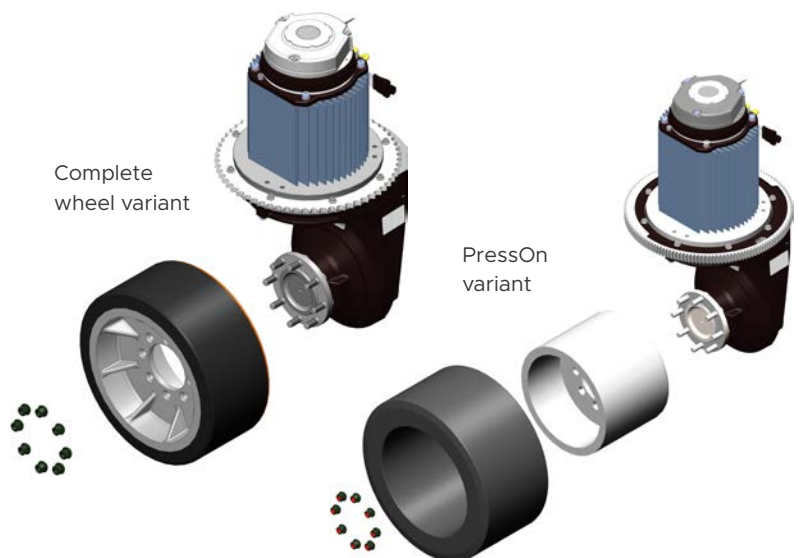
DIMOS offers a wide range of tyre options, particularly for our electric multidirectional sideloaders. The final selection should be determined by the use of the machine and based on accurate advice.

PU, EL, SE and pneumatic tyres already cover a wide range of possible applications.

A key focus at DIMOS is sustainability and ensuring a long service life for the tyres. For example, we give the user the option of choosing between a **PressOn variant** or a **complete wheel variant**.



Tyre treads



**WITH A WIDE RANGE OF TYRES AVAILABLE,  
DIMOS WILL ALWAYS FIND THE BEST SOLUTION.**




# CABINS RANGE FROM STANDARD TO CUSTOMISED SOLUTIONS

Not all cabins are the same – the focus is always on the operator



We have involved our global users in the development of our spacious driver's cabins. This allowed us to focus specifically on the features that are important when transporting long and bulky loads.

## THE CABINS OF THE FORKLIFT TRUCKS ARE AVAILABLE IN 3 VERSIONS:

-  Longitudinal cabin
-  Cross-seat cabin
-  Standing cabin



## High-quality standard cabin

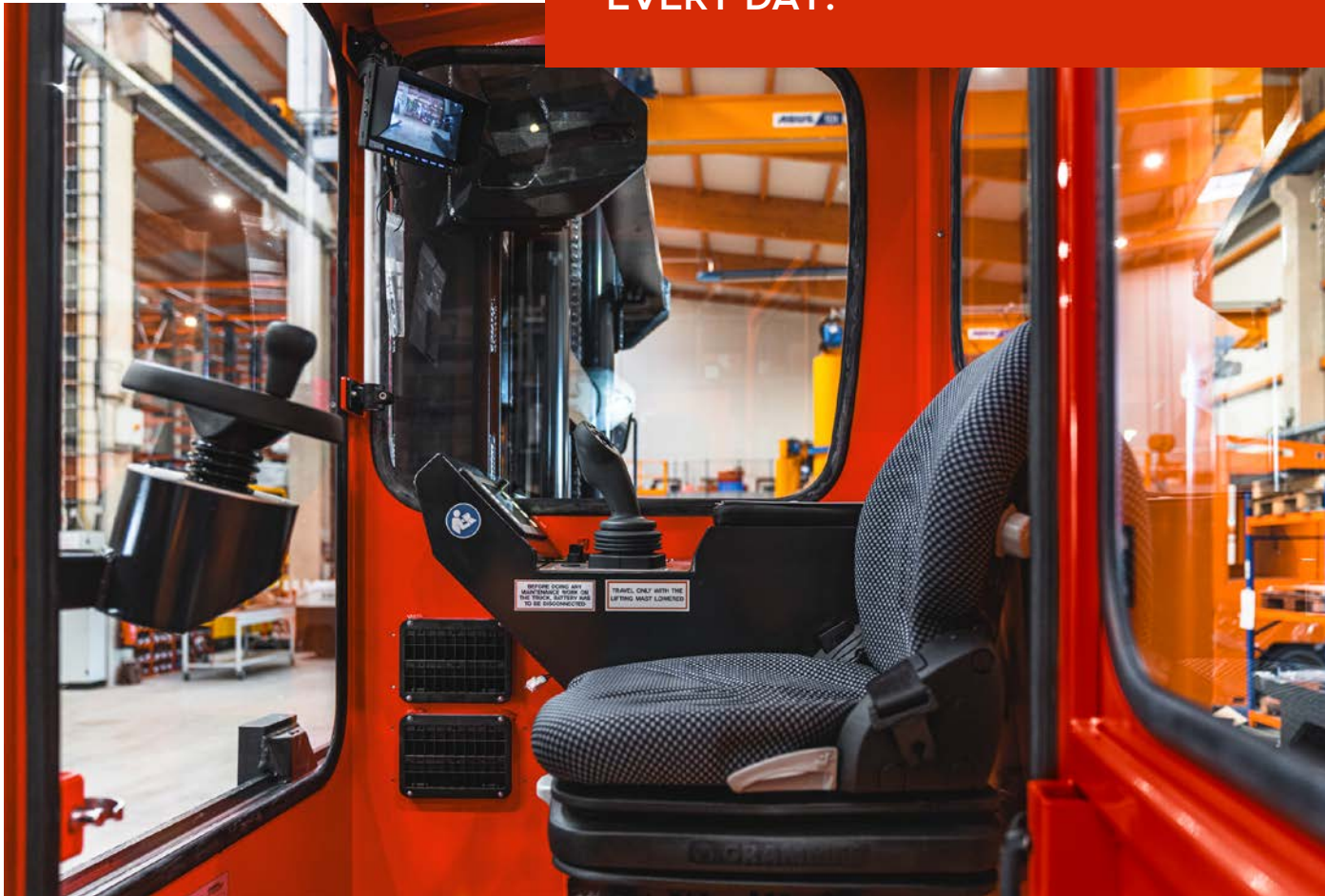
Decades of experience have gone into our standard cabin.

Ergonomics, intuitive operation, comfort, safety and visibility are particularly important factors for high-quality operation and use of the electric multidirectional sideloader.



We see our cabin not just as a cabin, but as a long-term workplace.

**THAT IS WHY IT IS PARTICULARLY IMPORTANT TO US THAT OUR OPERATORS START UP THEIR MACHINES WITH A SMILE EVERY DAY.**



### Detailed configuration

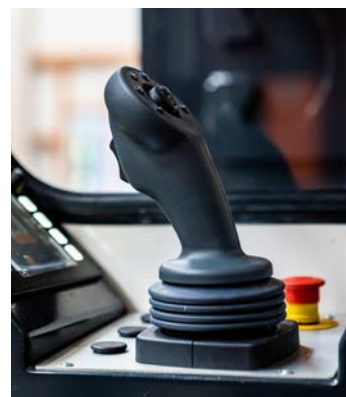
The layout of the working and operating elements and the use of high-quality, robust materials play an essential role. The clearly arranged instruments ensure quick visual perception and intuitive operation.



Information terminal

Ergonomic multifunction joystick

Additional equipment is also available, including air conditioning, heating, screens for camera systems, windscreen wipers, cabin lighting and radios.



Lockable driver's door

Screens for camera systems



# FLYING HIGH WITH THE DIMOS LIFT SYSTEM

## Mast

### Load classes from 1500 kg to 30,000 kg

By manufacturing all of our DIMOS lift frames in-house, we can respond even more flexibly to customer requirements.

The lift frames are produced both in series and as individual items. This mix provides the perfect balance of expertise and cost efficiency for our users.

It also allows us to provide reliable long-term support and care.

In addition to the most common mast systems such as simplex, duplex and triplex masts, we also offer our customers customised masts.



Simplex mast  
with standard free lift

Duplex mast  
with full free lift

Triplex mast

# OVERVIEW OF TYPES OF FORK CARRIER

## Standard fork carrier type I – type III

Fork carrier type I



Fork carrier type II



Fork carrier type III



### Capacity

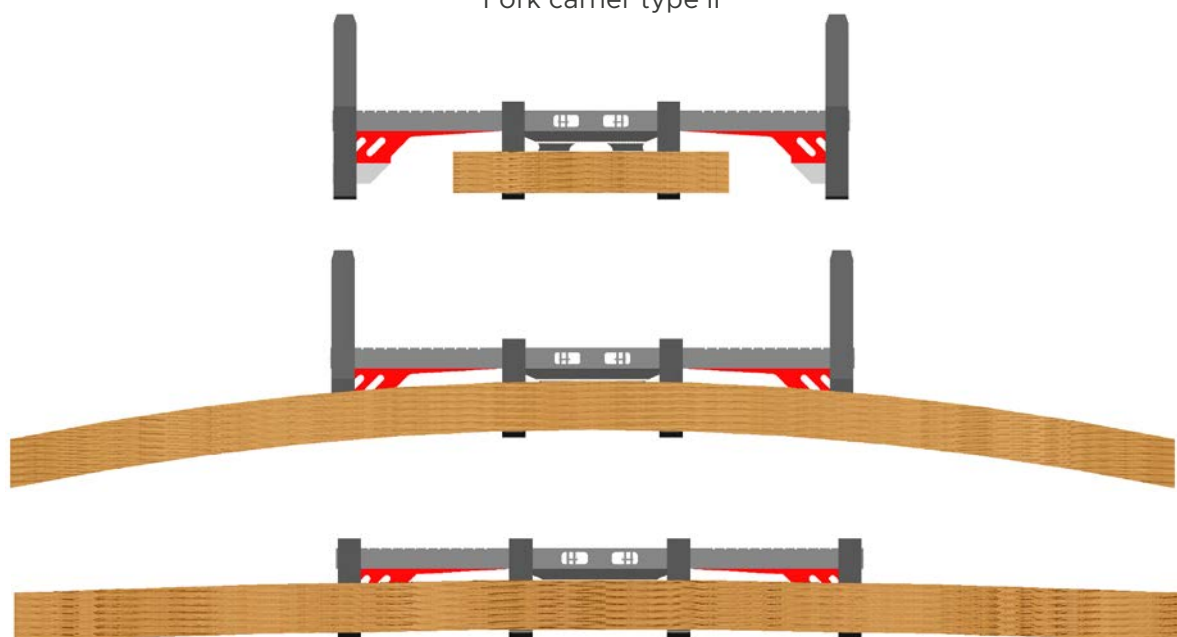
DIMOS fork carriers and attachments are easily customised to the needs of our users using our modular construction kit. In addition to the standard dimensions and capacities, we also offer special solutions to fulfil the complex handling requirements of our customers.

## Application examples of the capacity of standard fork carriers

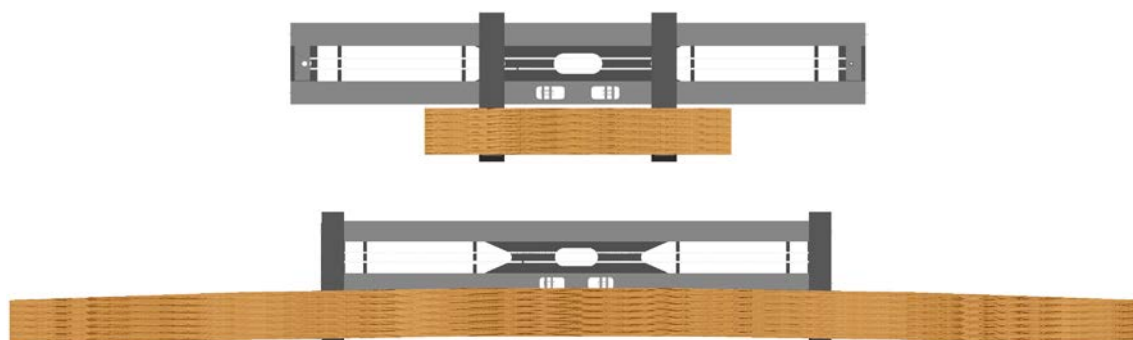
Fork carrier type I



Fork carrier type II



Fork carrier type III





## Overview of compact fork carrier type III

Capacities from 1.5 to 10 t

The design of our compact fork carrier type III is perfect for handling heavy and long loads with an extremely low fork carrier height.



Increased storage capacity due to lower fork carrier height



Compact fork carrier



Standard fork carrier



## Fork carrier attachments

### Spans up to 20 m

Many of our customers transport long and bulky loads, some of which are so uniquely proportioned that they require a particularly innovative solution such as the attachable fork carrier shown.

The attachable fork carrier has been specially developed for customers who transport small loads around 80% of the time and require a compact and manoeuvrable electric multidirectional sideloader for this purpose.

For the remaining 20% of loads with extremely long dimensions, the fork carrier attachment can be easily picked up from the cabin by the operator.

### A KEY ADVANTAGE:

- No additional machine is required to handle the large loads.
- Short set-up times, comfortable and safe load manoeuvring and fast, effective handling are critical factors in terms of profitability.

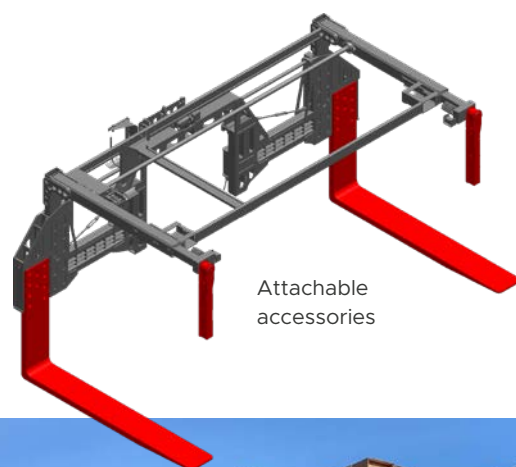


**DIMOS IS THE WORLD'S ONLY MANUFACTURER OF ATTACHABLE FORK CARRIERS WITH SPANS OF UP TO 20 METRES AND LOAD DIMENSIONS OF UP TO 45 METRES.**

# PERFECTLY PREPARED WITH THE DIMOS ATTACHMENTS

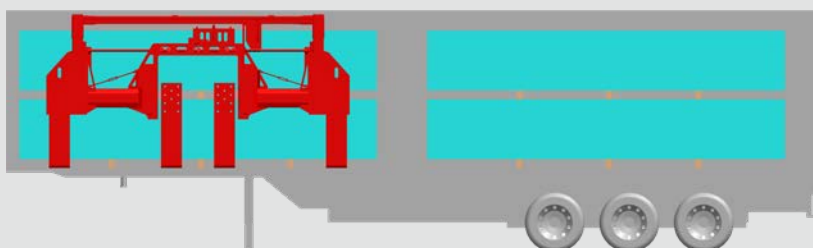
## Customised attachments

DIMOS also offers a wide range of options for mastering the most diverse challenges, especially when it comes to attachments.



### Customer case study:

#### DIMOS once again proves its flexibility and strength



The customer's requirements were to significantly reduce the physical exertion of the staff and the downtimes of the trucks in the loading area.

Until now, the goods have been unloaded from the truck in individual packages, which takes up to 2 hours per truck and requires high levels of personnel deployment and physical exertion.

With our attachable clamp accessory, we can reduce the downtime of the truck to 20 minutes.



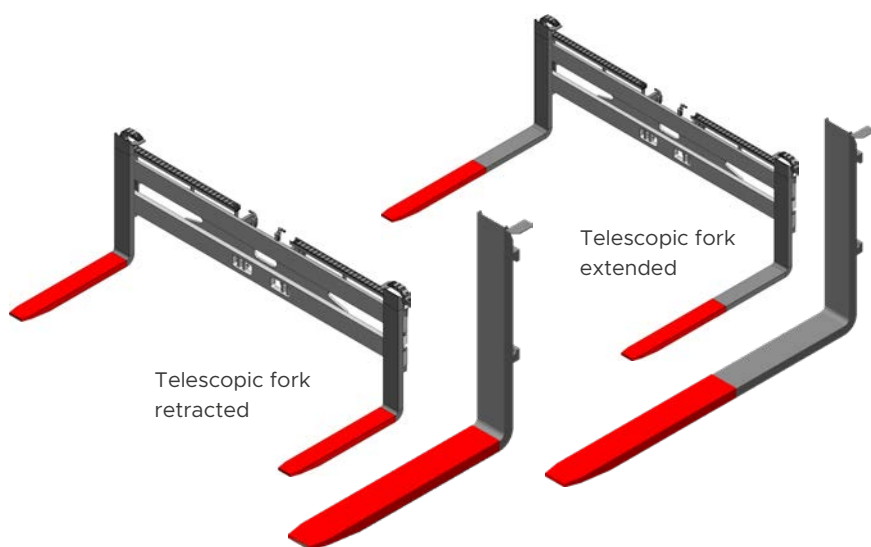
Unloading can be monitored by the operator from the cabin using camera technology or radio remote control or using a remote controller next to the machine.

The attachment is equipped with telescopic adjustment axes in all directions and can therefore grip and stabilise any unstable goods depending on the package size. With one lift, we can unload a mass of 15,000 kg from the truck.

## Telescopic forks

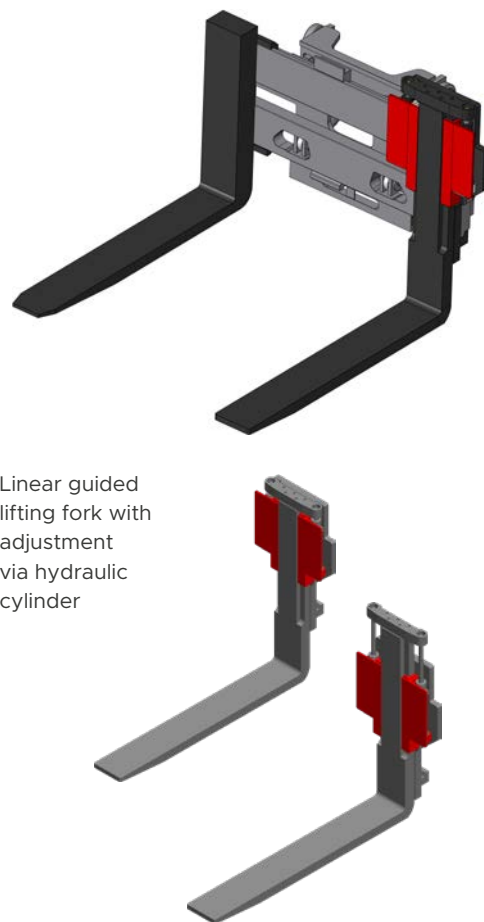
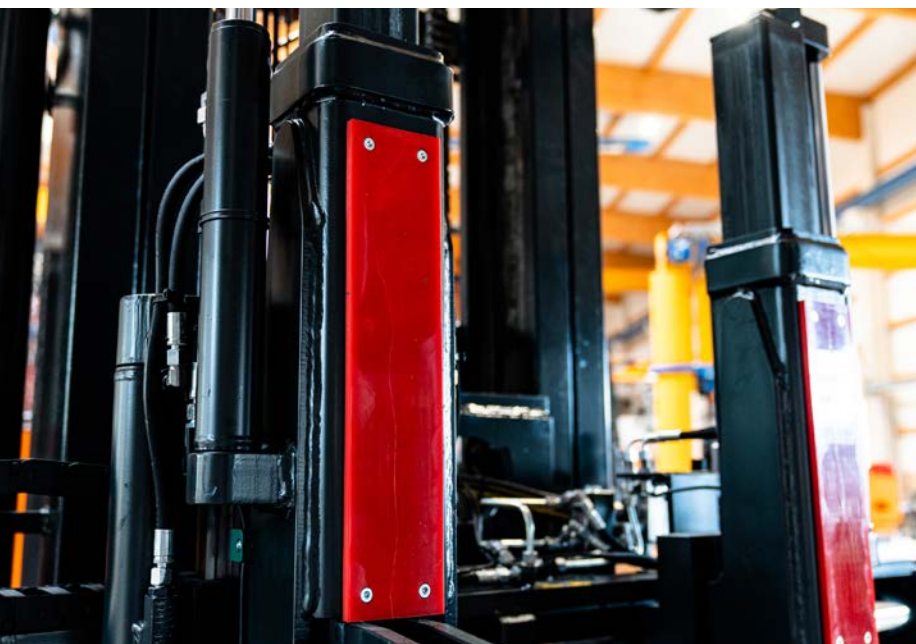
Telescopic forks allow the DMS to adapt perfectly to the dimensions of the goods, ensuring efficient and safe handling.

The telescopic forks allow wider goods to be transported or efficient through-loading manoeuvres to be carried out on the truck without repositioning the forks.



## Lifting forks

Lifting forks are often used for long goods and uneven ground conditions.

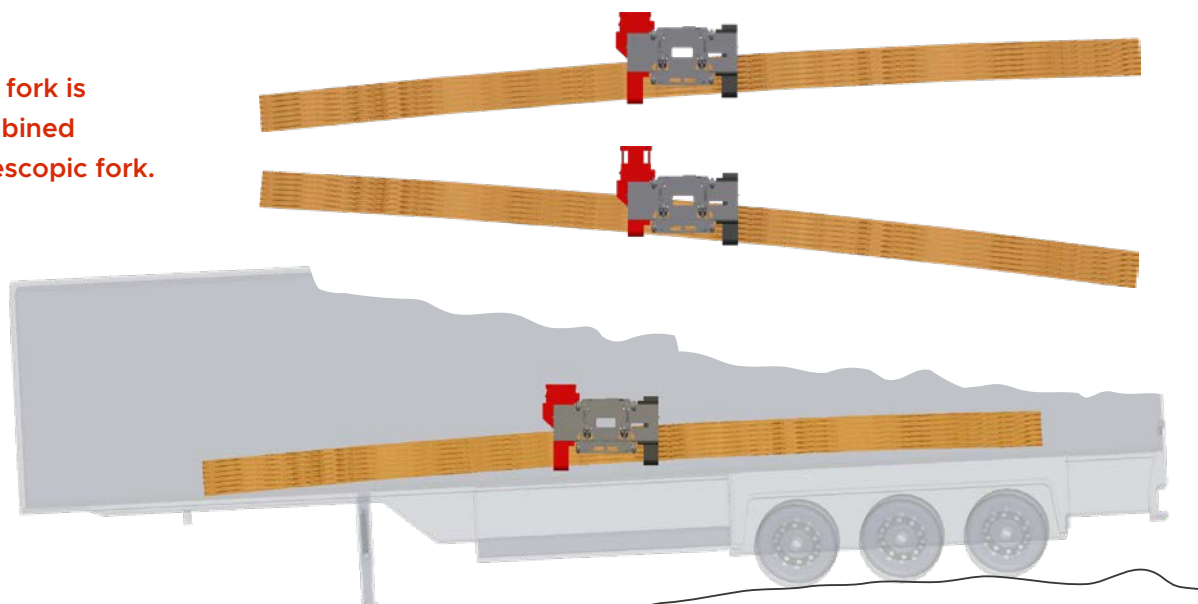


Linear guided lifting fork with adjustment via hydraulic cylinder

With the help of a lifting fork, the height of the load can be adjusted on one side and the load can be loaded straight and safely even on uneven ground.

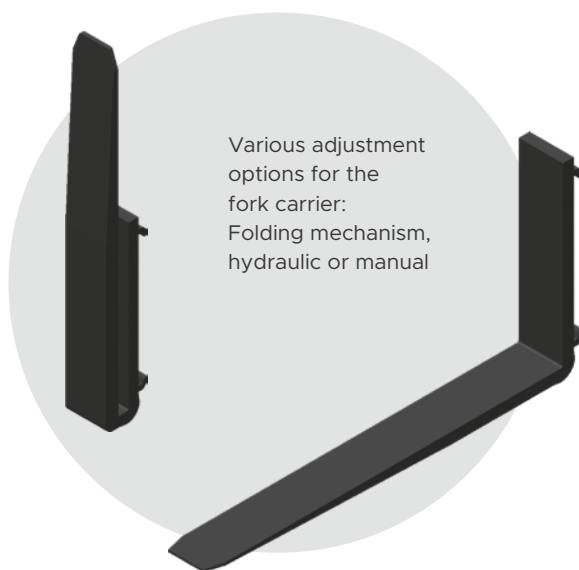
This system is very often used for delicate and expensive goods to prevent damage during loading. It also makes the loading process safer.

**The lifting fork is often combined with a telescopic fork.**

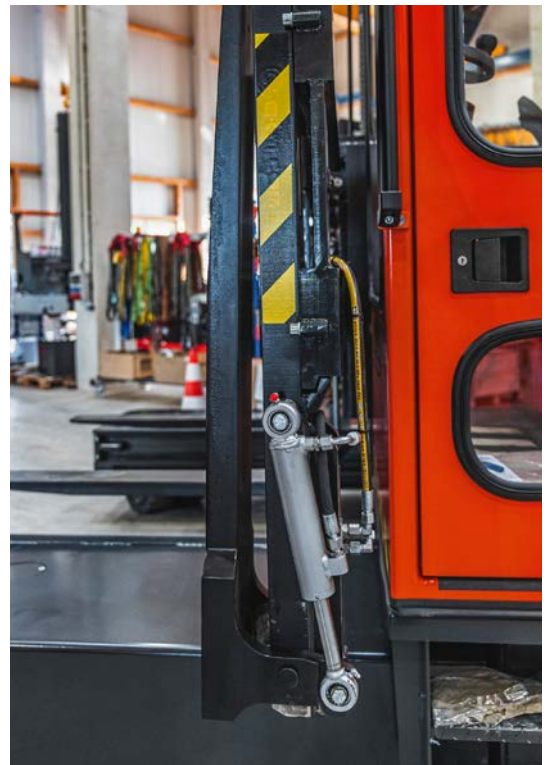


## Folding forks

Where a wide variety of goods are transported and the demands on the machine are constantly changing, folding forks can be optimally adjusted to the goods to be transported. For example, additional forks are folded down for unstable long goods with high deflection.



When forklift trucks are used in road traffic, it must also be ensured that other road users are not endangered by protruding fork arms. Folding forks are ideal for this purpose.



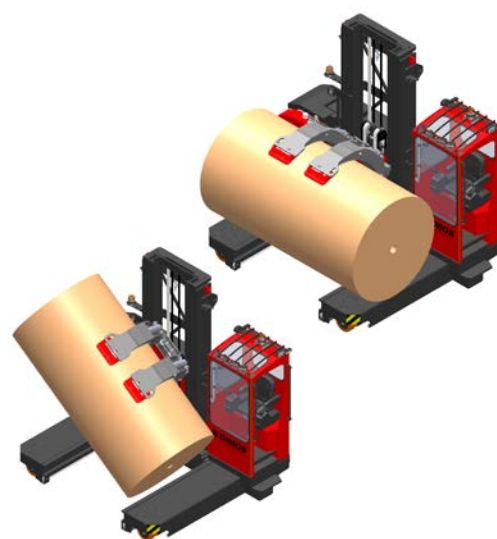
## Roller clamp

Rotatable by 180° and 360°

Attachments such as a roller clamp are often used on our machines when transporting paper rolls or other wrapped goods in passageways with limited height and width.

The roller clamp picks up a standing paper roll, for example, and swivels it by 90° so that it can be transported compactly in the longitudinal direction.

The roller clamp is available in different versions and is designed according to the application requirements. The usual rotation ranges are 90°, 180° and 360°.



## Mandrel

Mandrels are used to transport wire or steel coils. The mandrel can be used to transport heavy coils effectively in confined spaces and narrow aisles or even to store coils at previously unattainable heights to save space.



## Warp beams and steel core grippers

Wound goods, such as those used in the textile industry or abrasives production, are often wound on warp beams or steel cores.

This means that these goods can be stored and retrieved safely and effectively in installations or high-bay racking.



# REMOVABLE ORDER PICKING SOLUTIONS

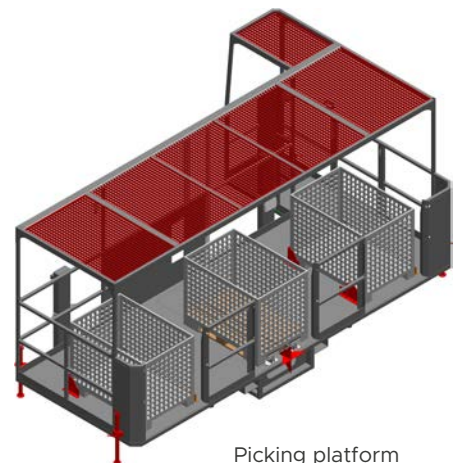


## Removable picking platform

Removable picking platforms from DIMOS are often used in high-bay racking.

The advantage here is the reduction in machine hours, as well as the effective use of the flow of goods behind the goods to be picked.

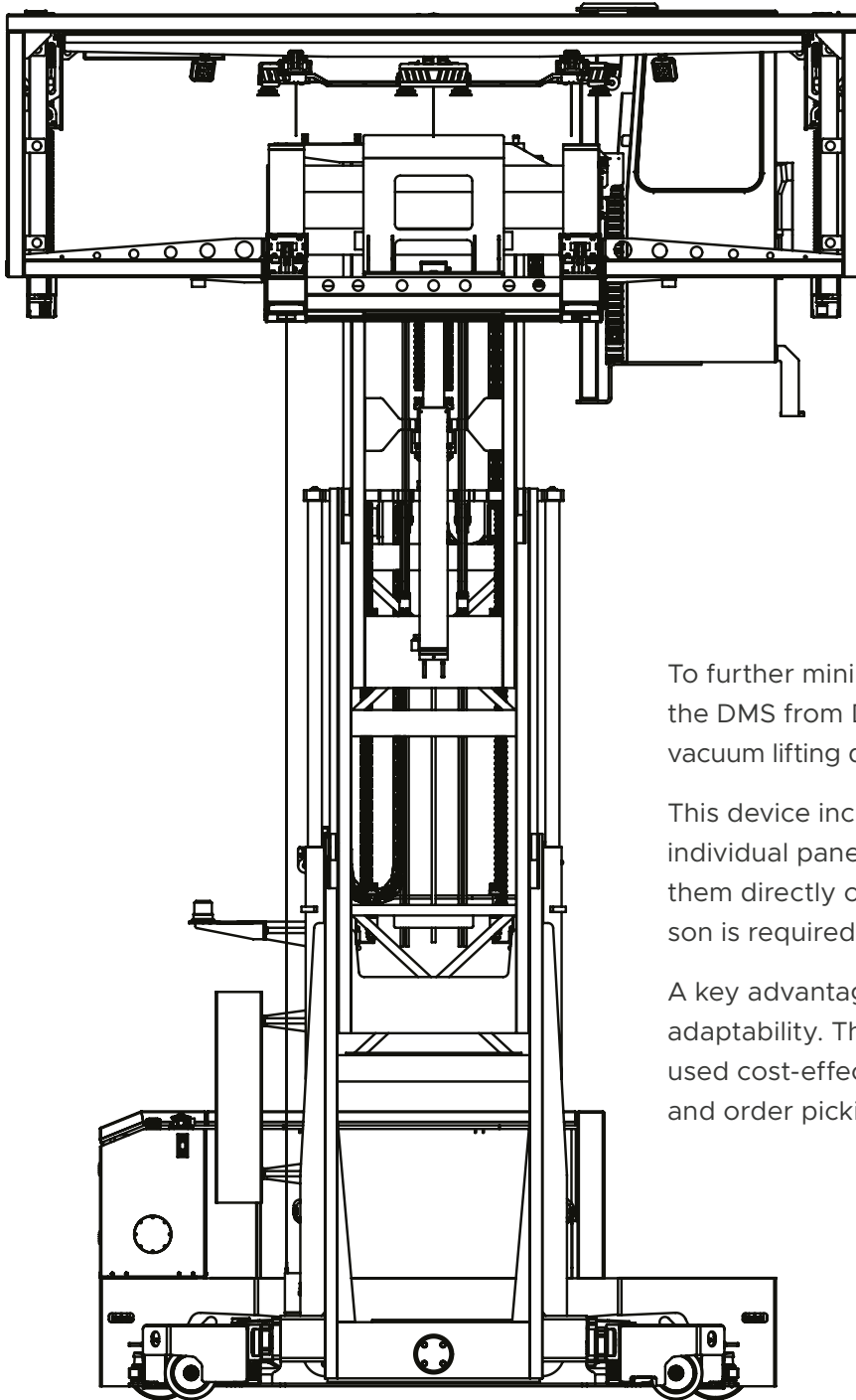
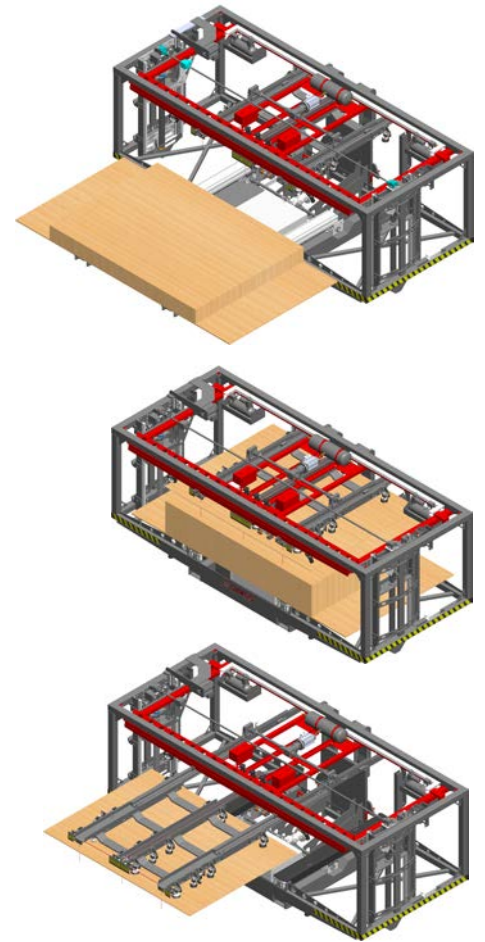
The operator can pick the goods directly from the rack and prepare them for dispatch directly on the platform.



Picking platform  
with 3 picking stations



## Removable vacuum suction device



To further minimise the likelihood of material damage, the DMS from DIMOS can be optionally equipped with a vacuum lifting device on the removable picking platform.

This device includes extendable suction cups that suck individual panels from the rack compartment and place them directly on the platform. As a result, only one person is required to operate the device.

A key advantage of this modular solution is its adaptability. The multidirectional sideloader can be used cost-effectively for both transporting loads and order picking with medium throughput volumes.





## Man-up cabin

Our man-up cabins are a major asset to DIMOS – to this day, we are the technological market leader in this area of application.

Our innovative solutions, such as initial lift in a wide range of variants, are key to our success.

We include lift heights of up to 16 metres in our product portfolio. Our customers often choose a system with a man-up cabin from heights of 8 metres upwards, as this ensures an optimum view during the storage and retrieval process and safe handling of the goods at high lift heights.

## Man-up cabin



### With initial lift

Each forklift truck has a dimensional chain controlled by dependencies. This dimensional chain can have a significant impact on ergonomics and safety, especially at high lift heights. For example, a high lift height results in a high overall height of the mast.

This poses a major problem when positioning the man-up cabin on the mast.

A choice must be made between a low, comfortable entry height to the machine or a good view of the fork arms.

**SOLUTION PROVIDER  
WITH UNIQUE AND  
INNOVATIVE INITIAL  
LIFT SYSTEM.**

This system ensures a perfect view of the working area at all times, as well as permanently low entry height and comfortable access to the driver's cabin.

### Without initial lift

Of course, we also offer lift systems without initial lift, in which case the cabin is attached directly to the inner mast of the lift system.

This variant is often used for less powerful applications and lower lift heights.



# LIGHTING PACKAGES FOR SAFE LIGHTING

## Work and safety lighting

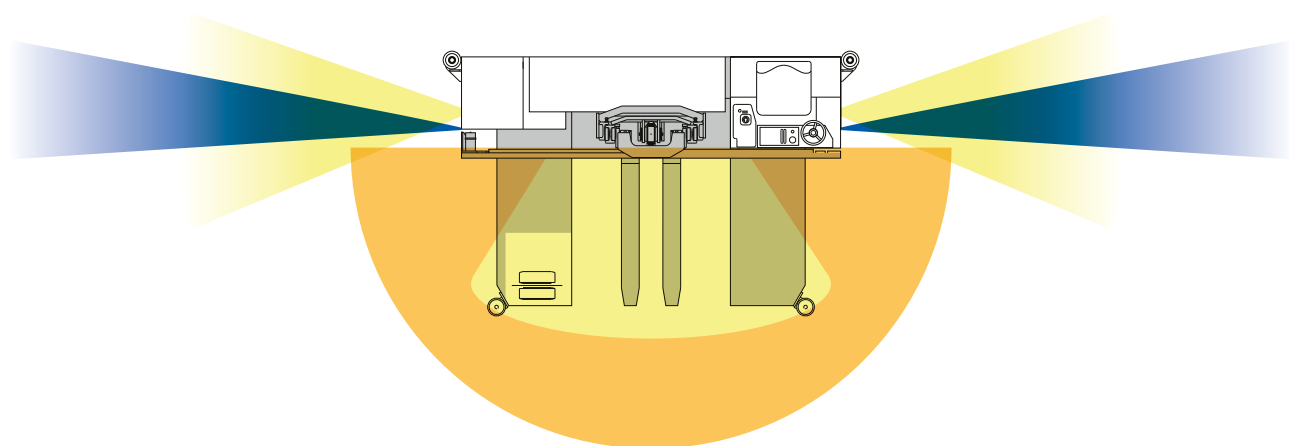
### DIMOS offers various lighting packages

These can be attached to the truck individually or in combination.

Work and safety lighting is very important, especially in poorly lit halls or outdoor areas, in order to optimally illuminate the working environment, to prevent goods and vehicles from being damaged due to poor visibility and to be seen on busy sites.



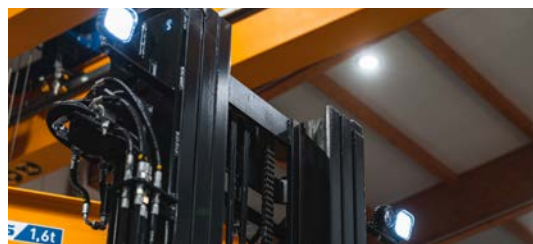
Popular work and safety lighting





### Different lights have different uses

- **Primary lighting** for illuminating the immediate working area, e.g. on fork arms or load bed.
- **Secondary lighting** for illuminating the extended working area, e.g. a rack aisle or the area in front of the machine where the goods are stored.
- **Ambient lighting** is used to illuminate the wider surroundings and makes the truck more visible.
- **Safety lighting** is required to visually draw attention to the truck. For example, if audible warning signals are not sufficient.



# STAY ON TRACK WITH DIMOS ASSISTANCE

## Track guidance in narrow aisles

### Mechanical

The mechanical track guidance system consists of four guide rollers mounted on the outer points of the frame contour and two diagonally mounted distance sensors. This roller system is supported by the guide rails when entering the narrow aisle. Once the entire machine contour has been retracted, the distance sensors centre the machine in the aisle and deactivate the active steering. Depending on the guide rail tolerance, the electric multidirectional sideloader is guided through the aisle with virtually no contact.

### Inductive

The truck recognises the guide wire embedded in the floor. The operator confirms travel on the guide wire with the help of a travel programme. The truck is now guided fully automatically and without mechanical assistance.

### MECHANICAL ADVANTAGES

- Robust and simple guidance system
- Low maintenance effort



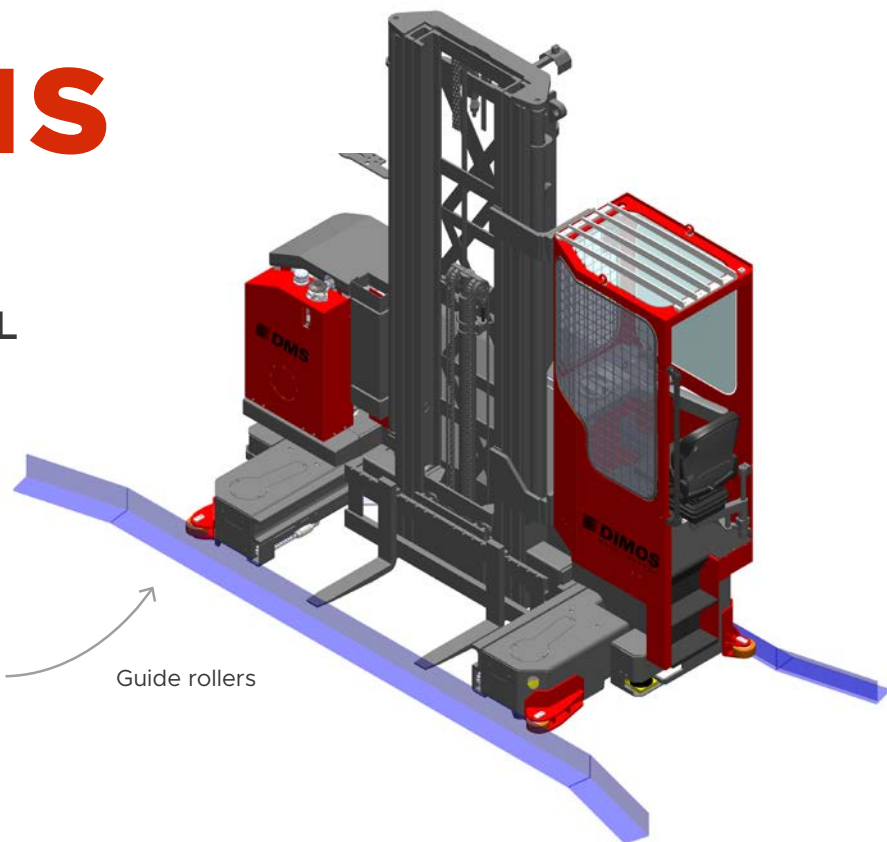
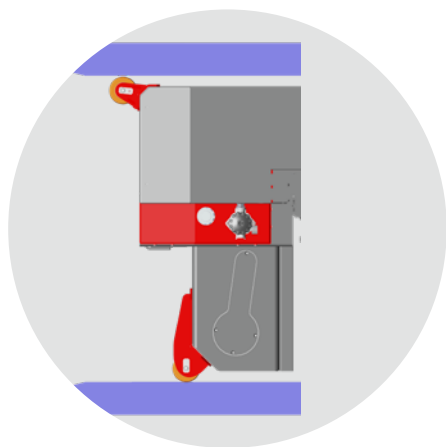
### ADVANTAGES OF INDUCTIVE TECHNOLOGY

- By eliminating the guide rail, the lowest storage level is not lost and can also be utilised
- More valuable storage space
- Flexible and simple installation of the machine – no further assembly is required aside from the guide wire system and the RFID transponder



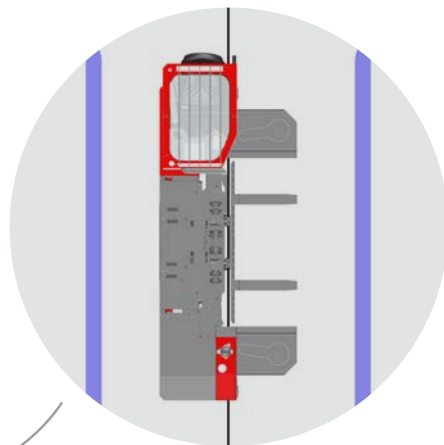
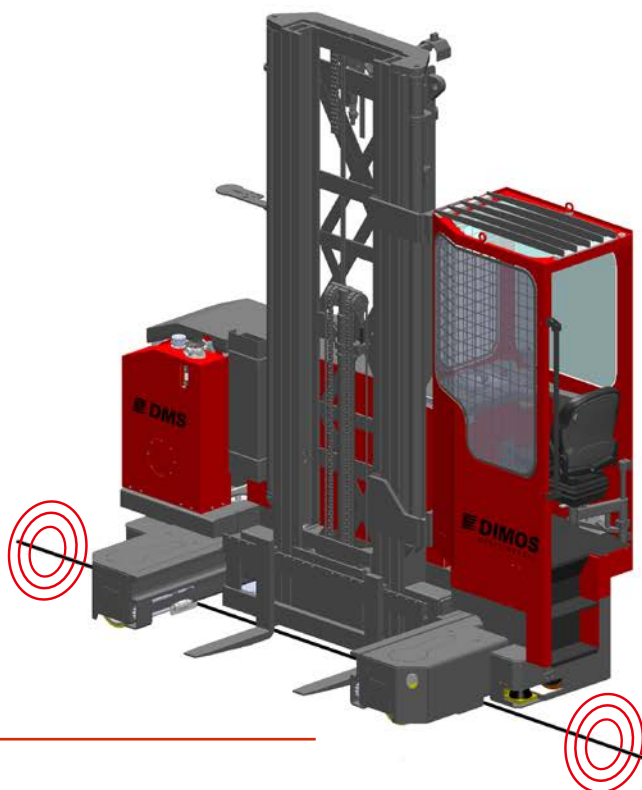
# SYSTEMS

## MECHANICAL



Guide rollers

## INDUCTIVE



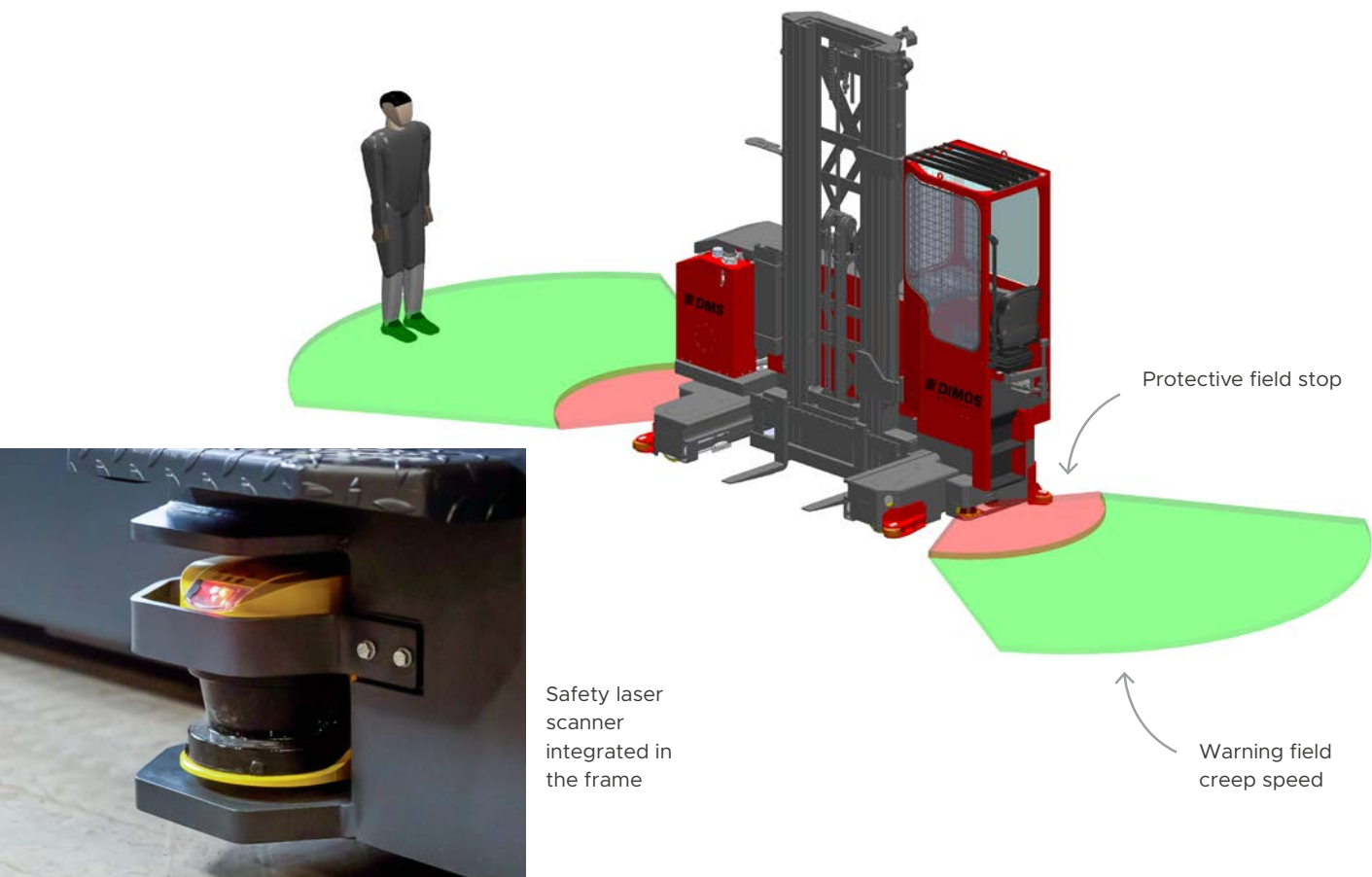
Guide wire

# SYSTEMS TO ENHANCE SAFETY

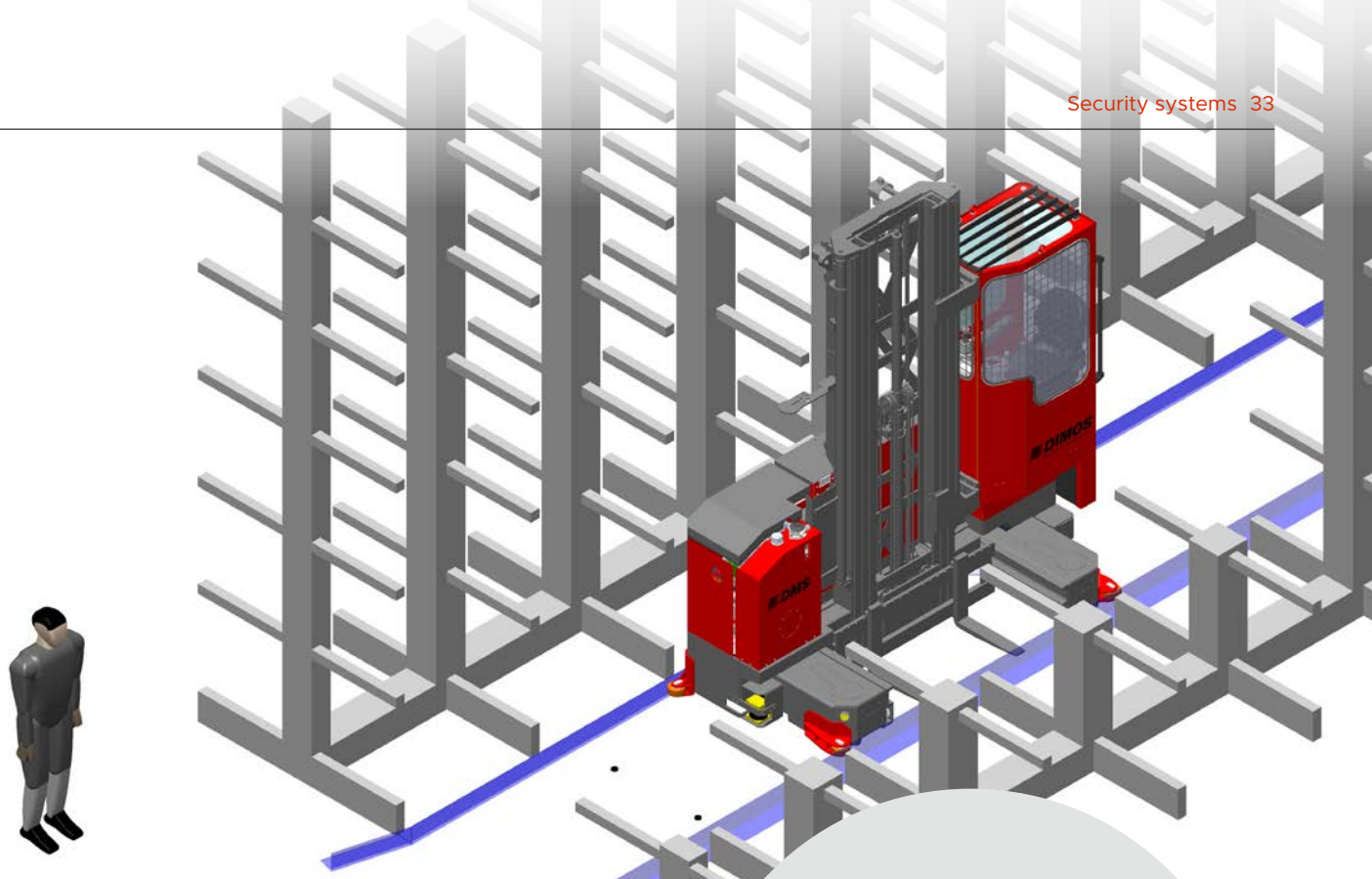
## Personal protection equipment

Our PPE (personal protection equipment) is a good way of meeting today's safety standards, particularly in narrow-aisle operations. This mobile form of area security/access monitoring offers our customers maximum flexibility.

Various protected areas can be created and defined. When an obstacle is detected, a protective measure is taken depending on the distance. This can either consist of putting the machine into creep speed or bringing it to a complete stop.





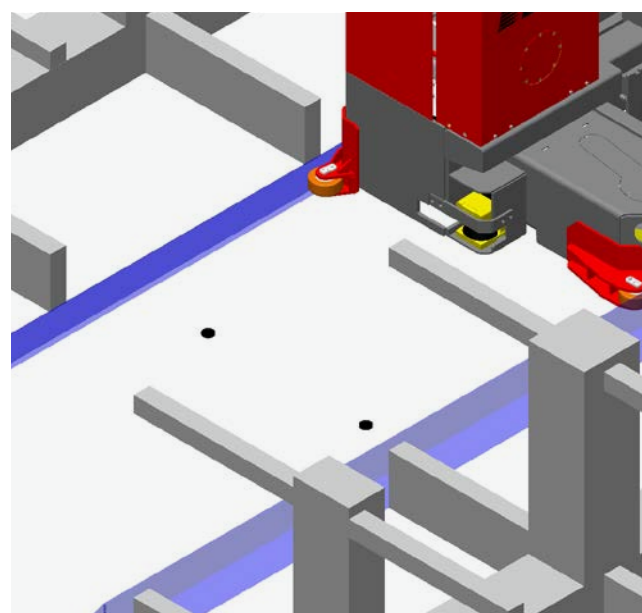


## RFID aisle protection

Floor sensors, which are specifically used in narrow aisles, automatically reduce the machine's travel speed shortly before leaving the work aisle and trigger an audible warning signal.

This warns people passing by in the danger zone.

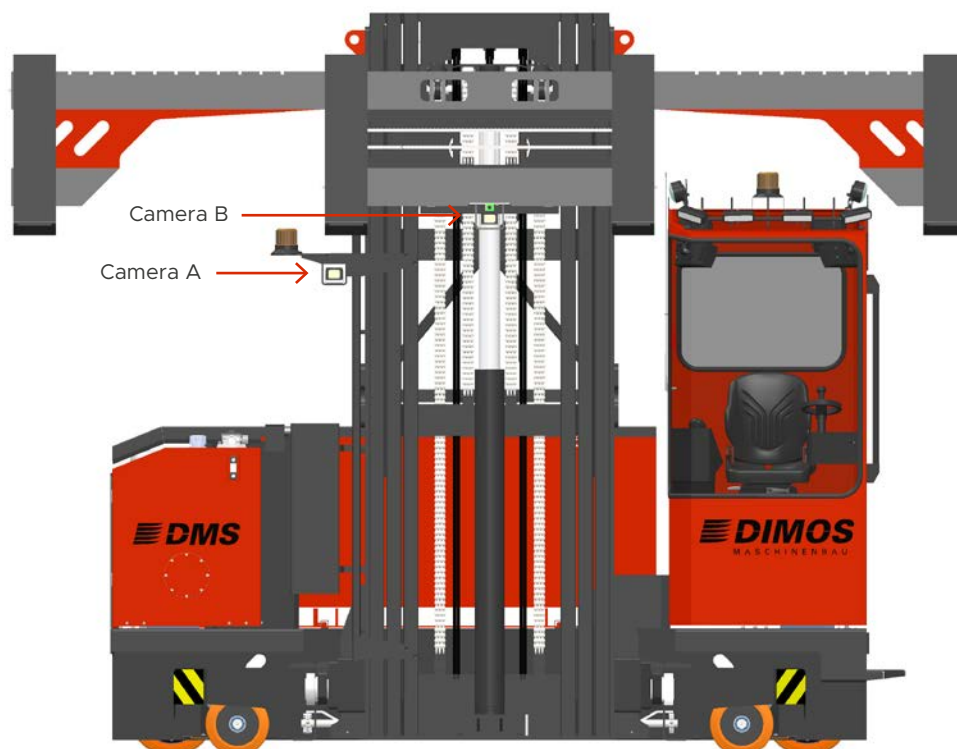
The RFID tags can be freely programmed and transmit various commands to our electric multidirectional silder. The mast extension path can also be programmed using RFID tags so that our customers can operate different aisles with different usable widths.



## Camera systems

Camera systems are often used to improve monitoring of the storage and retrieval process at high lift heights. Various camera positions can be selected, and of course customised according to customer requirements.

The most common variants of camera system are shown here; centred on the fork carrier (camera B) and camera monitoring after leaving the free lift (camera A).



JAF:

# “EXCELLENT SERVICE AND EXPERTISE”



“We spent a long time looking for solutions for our warehouse and found a great partner in DIMOS. Reliable service is particularly important to us – DIMOS has an excellent standing and is there to support us whenever difficulties arise”.

- Truck types in use:  
DMS 40/DMS 45/DMS 70
- Operating times:  
1000 – 2000 hrs/year
- 1-shift and 3-shift operation
- Sites in Austria, the Czech Republic, Slovakia and Slovenia, among others



We're here to help.  
Just get in touch!



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DIMOS FZCO  
Airport Free Zone,  
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