

# FROM AIRSIDE TO LANDSIDE

SYSTEM SOLUTIONS FOR  
AIR CARGO HANDLING

PLACE, DATE

# INTRODUCING THE NEW GENERATION OF AIR CARGO VEHICLES

HUBTEX.

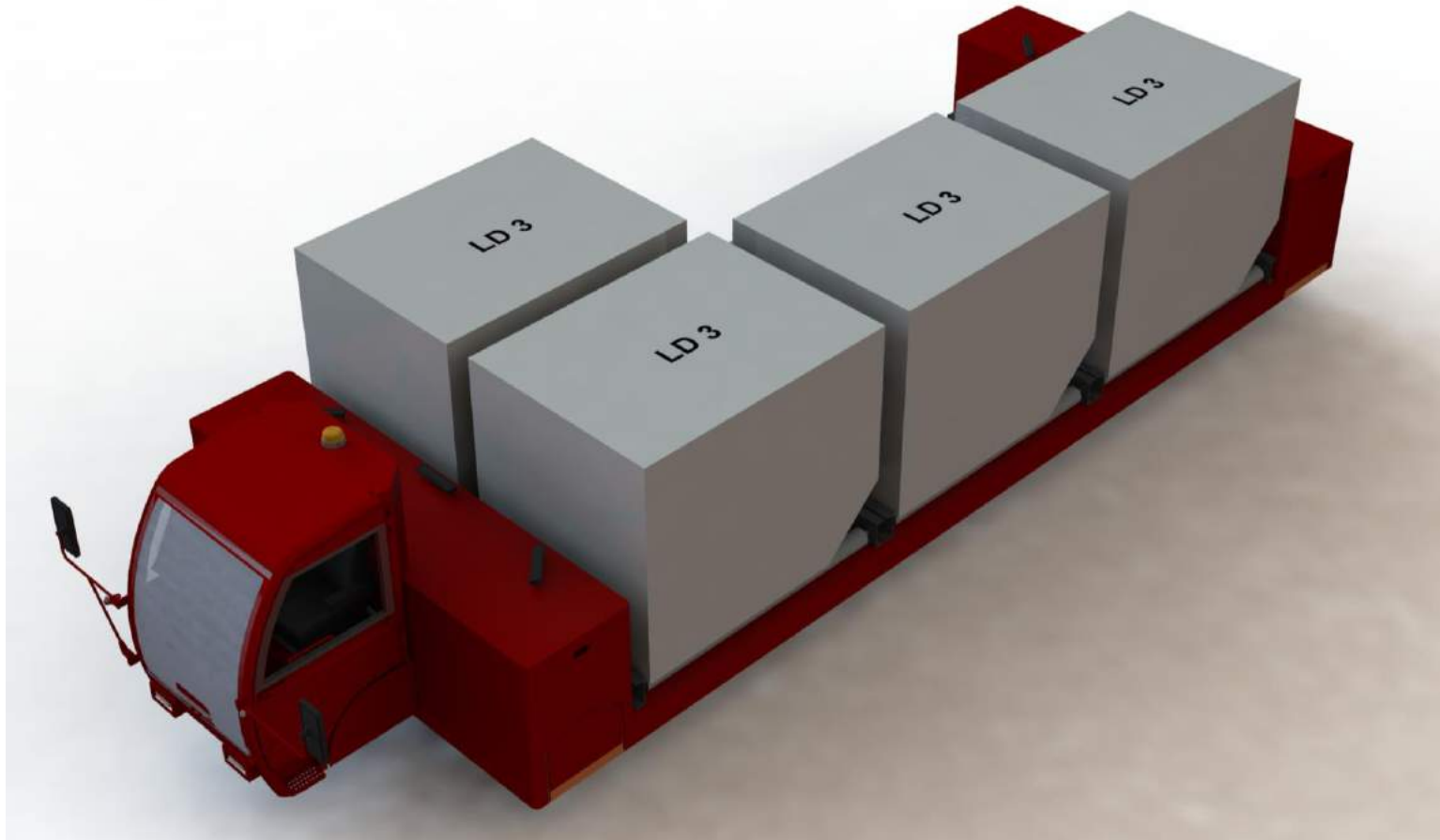
The new process of Air Cargo handling

In the airfreight sector, there are regular order peaks, which often have to be handled with a lot of manpower. This is where the new products from DIMOS | HUBTEX come into play. With the series X-Way Mover, INTRAC, Pallet Mover and X-Way Transporter we revolutionize the air cargo handling.



# FROM AIRSIDE TO LANDSIDE

## Airside handling with the X-Way Transporter



### From airside to the logistics terminal

The space at the apron is limited. The Dolly Train requires too much working space here due to high turning radii and long vehicle lengths. With the X-Way Transporter and its 360 degree steering and at the same time compact dimensions while transporting the same capacity, urgently needed space can be saved. The roller deck allows an independent loading and unloading of goods. The working range of the X-Way Transporter extends from the pick-up tarpaulin to the delivery at the logistics terminal.



# FROM AIRSIDE TO LANDSIDE

## Handover of the ULDs with X-Way Transporter and X-Way Mover



### Handing over the ULDs

When the ULDs are handed over at the logistics terminal, the X-Way Transporter has two options: either the ULDs are transferred to a flat rack, which transports them to the logistics center for further processing. Option 2 is the transfer to a X-Way Mover, which can flexibly transport the goods further and store them on the second or third level, thus overcoming existing system limitations.

# FROM AIRSIDE TO LANDSIDE

## Storage with the X-Way Mover



### Multifunctional storage

The X-Way Mover replaces the ETV in the storage process and is not stationary. Due to the multi-directional steering system, even narrow rack aisles can be served. The use of the X-Way Mover guarantees the customer a high degree of flexibility even during peak loads.

# FROM AIRSIDE TO LANDSIDE

## Handover to Landside with the X-Way Mover



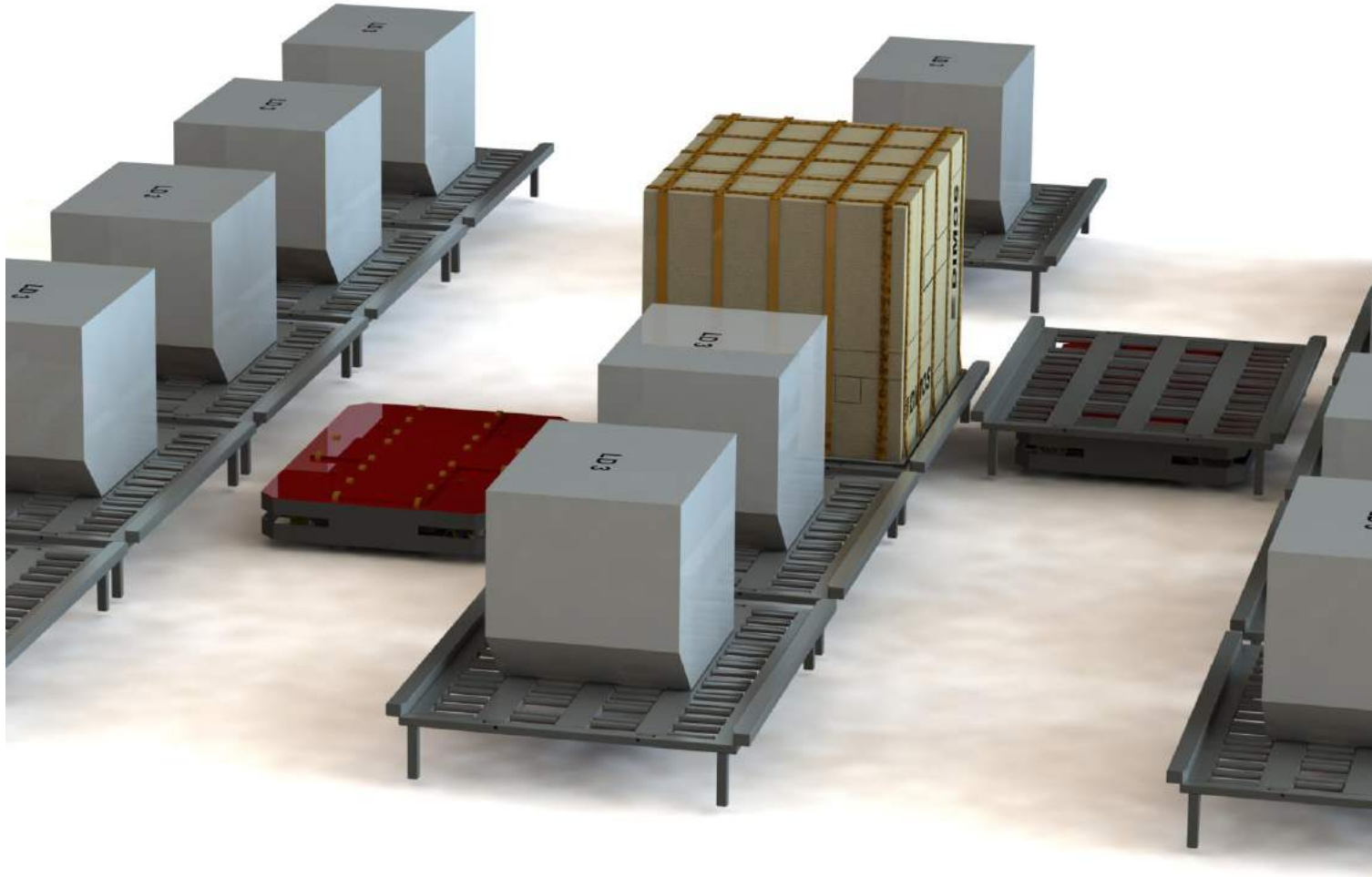
### Handover to the Landside

In addition to the classic shelf servicing, the X-Way Mover can also be used as a mobile truck dock, both for 10-foot and 20-foot pallets. Thus, the use of the X-Way Mover ensures efficient loading and unloading of trucks while maintaining flexibility.



# FROM AIRSIDE TO LANDSIDE

## Area storage with the INTRAC



### **Flexible storage capacity with the INTRAC**

The INTRAC is used as a (semi-) autonomous Pallet Mover in area storage. By prioritizing the cargo, a flexible design of the storage area is possible. Depending on the workload, the customer can arrange the goods in block storage or standard area storage. This way, storage space can be generated and optimally used even in case of peaks.

# FROM AIRSIDE TO LANDSIDE

Multi-level storage with the ULD Lifter



## Enhancing storage capacity on multiple levels

With the ULD Lifter from DIMOS | HUBTEX different levels within a multi-storey warehouse can be handled. This ensures smooth transitions and thus an efficient use of the entire building, thus counteracting storage shortages.



# FROM AIRSIDE TO LANDSIDE

## Our advantages

### **Our system solution for the handling of air cargo has the following advantages:**

- All vehicles can be fully or partially automated
- INTRAC, X-Way Mover and X-Way Transporter all have 360° steering
- All vehicles fit the IATA standards
- Go Green – all vehicles are equipped with a 100 % electrical drive
- With our system solution in combination with our trucks the logistics barriers can be overcome easily
- Double or triple your storage capacity without expanding the warehouse
- Reduction of fleet and maintenance costs
- Logistics processes can be easily adapted during peak demands
  - ULDs can be stored according to their urgency or
  - bloc storage can be enabled

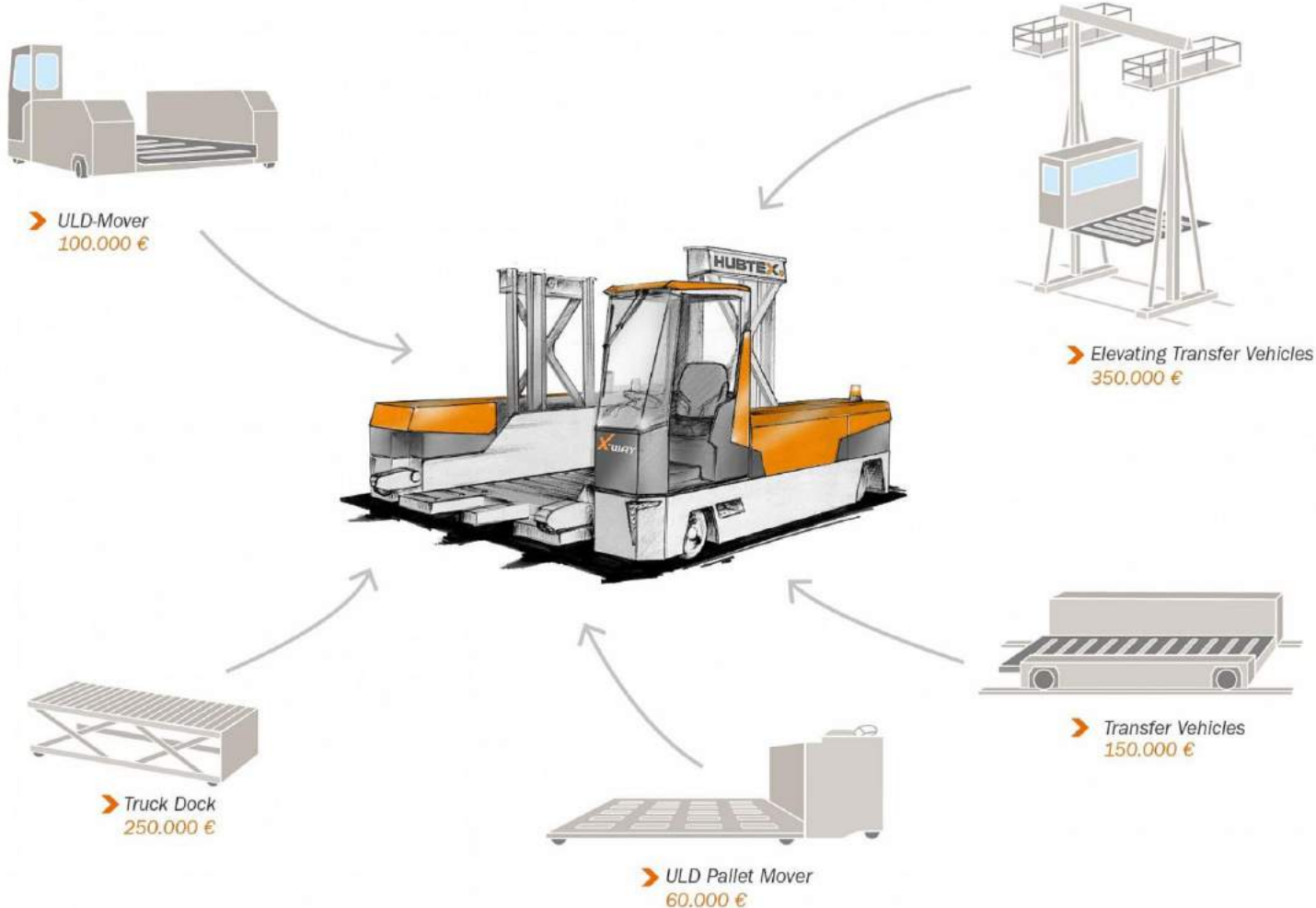


# **BACKUP**

**PRODUCT SLIDES**

# AIR CARGO APPLICATION

## X-Way-MOVER Concept

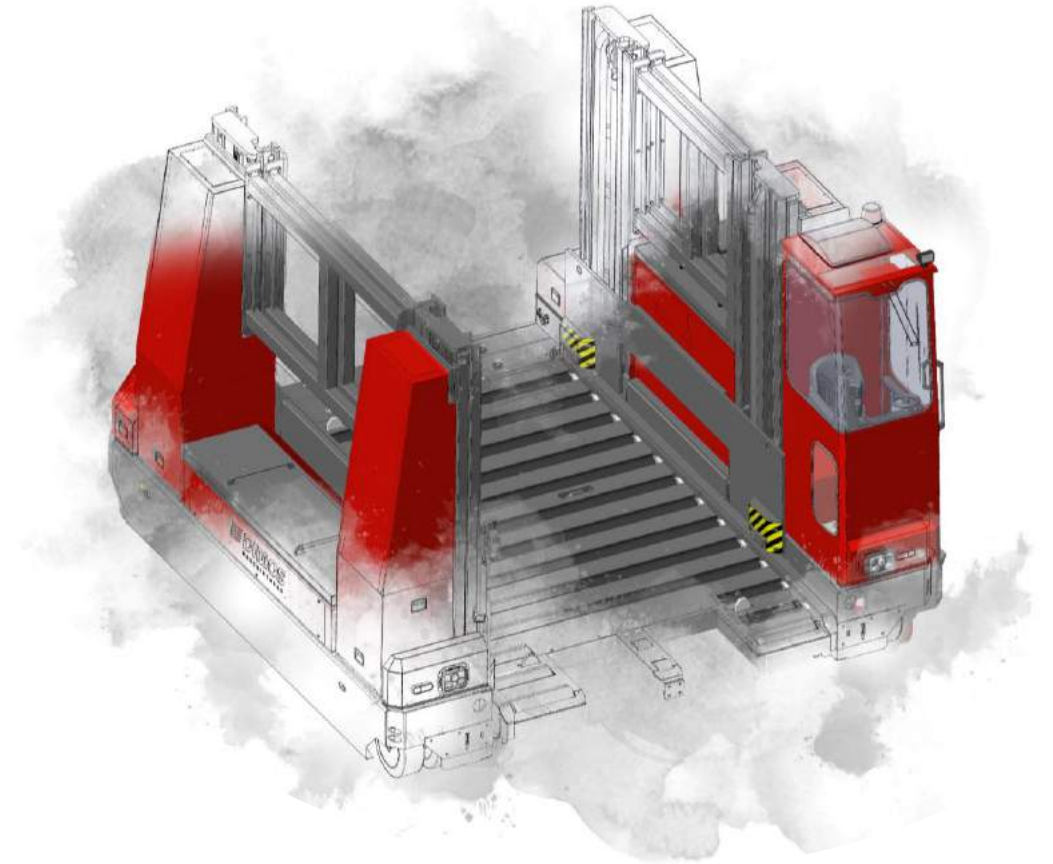




# NEW GENERATION X-WAY-MOVER

## Key facts

- HX-360° steering system
- Optimised visibility (cabin left or right hand side)
- Level compensation
- 2-mast-version (10ft) – modular extension possible
- New operator panel incl. new information terminal

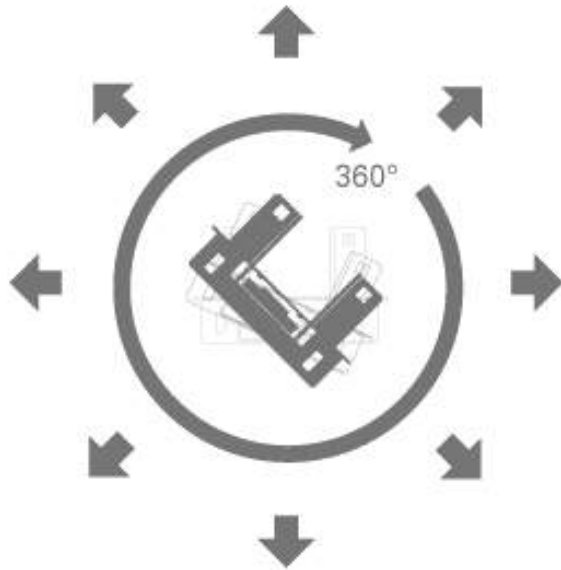


# TECHNICAL HIGHLIGHTS

## X-Way Mover - Multi Directional ULD Mover

### SAFETY CENTRAL ELECTRONICS

Displacement of steering poles for stable and quiet driving manoeuvres at high speed -  
Monitoring of all safety-relevant devices



### **HX-HP 360 ° Multi-Directional-Steering system instead of hydraulic system with a steering single axle**

The X-Way Mover is equipped with an electronic HX-HP 360° directional-steering-system. This steering system allows all direction changes without switching on the display.

This results in a high flexibility and time savings of the positioning process.

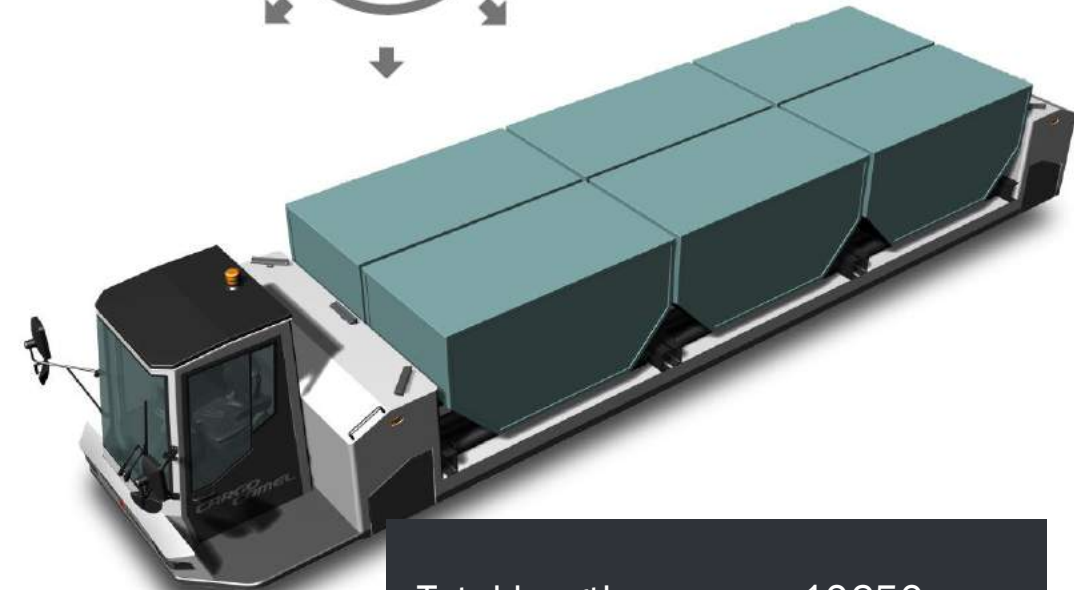
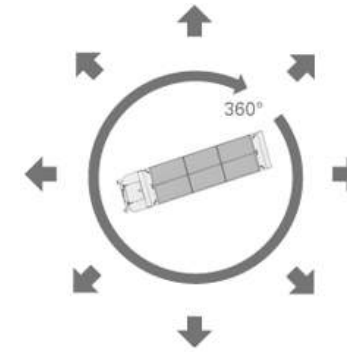
Optical steering-program-display and electronic parking brake provided.

In order to gain a stable ride over long distances, the operator has the option of switching on the steering program “Steer only front axle” in the display

# THE X-WAY TRANSPORTER

Cargo Camel CC-960 | 2 x 3 LD-3-45

- The X-Way Transporter has 6 positions available for LD3
- This means 5 trips to unload / load a B777 with 28 LD 3 / 36 (Family) with 7 / 11 LD 3 containers
- At 25 km/h, the X-Way Transporter travels 1 km in about 2.5 min. (depending on speed limits on site)
- Loading or unloading from the high loader approx. 10 min (depending on the operator)
- Transfer at infeed baggage or cargo terminal approx. 5 min (depending on operator)
- If the cargo terminal is 1 km away a cargo camel needs about 20 min for a cycle to load 6 LD3



Total length:	10650 mm
Platform length:	8000 mm
Width:	3300 mm
Platform width:	3300 mm
Truck height:	2135 mm
Platform height:	508 mm
Turning radius:	6150 mm



# THE X-WAY TRANSPORTER

## Arguments at a glance

### –Reduced space requirement

- Less than half a length of a dolly train
- Less than 1/3 of dolly parking space

### –Speed advantage / Time saving

- Up to 50% when serving outside parking positions
- Dollies don't need to be attached and dropped

### –Fully electric vehicles

### –No CO2 emissions

### –Low energy costs

### –Low maintenance costs

### –Higher maneuverability

### –AGV Ready

- Can be operated by a driver
- Is already capable of being transferred into an autonomously operated vehicle
- Connection of the device to an existing merchandise management system possible

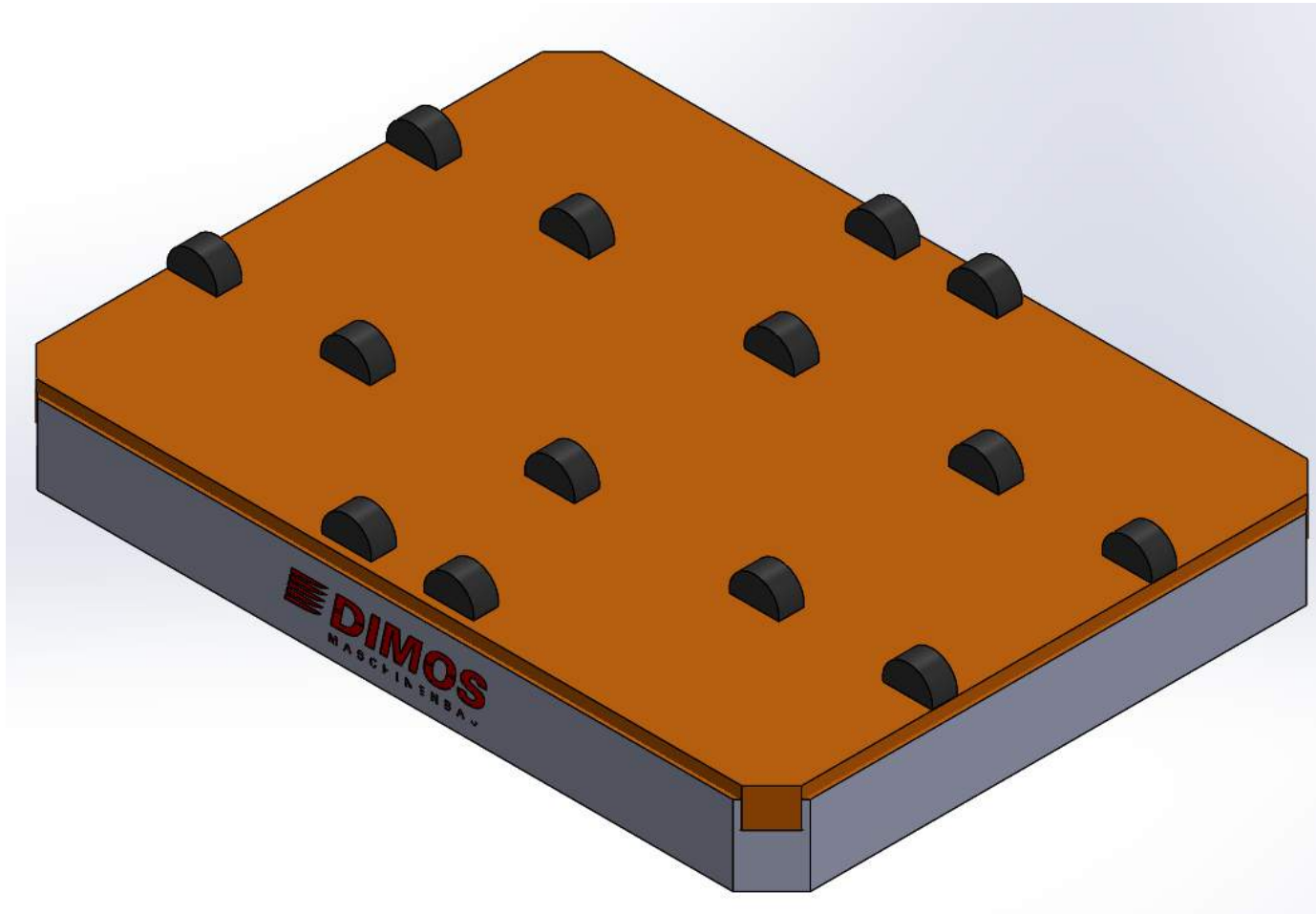
### –Reduced personnel and operating costs

### –Configurations are designed for handling all types of LD3 containers

### –LD3 type containers for B-777 and other wide body aircraft and for LD3-45 for the Airbus A-320 family.

# THE INTRAC SYSTEM

The new way of ULD handling

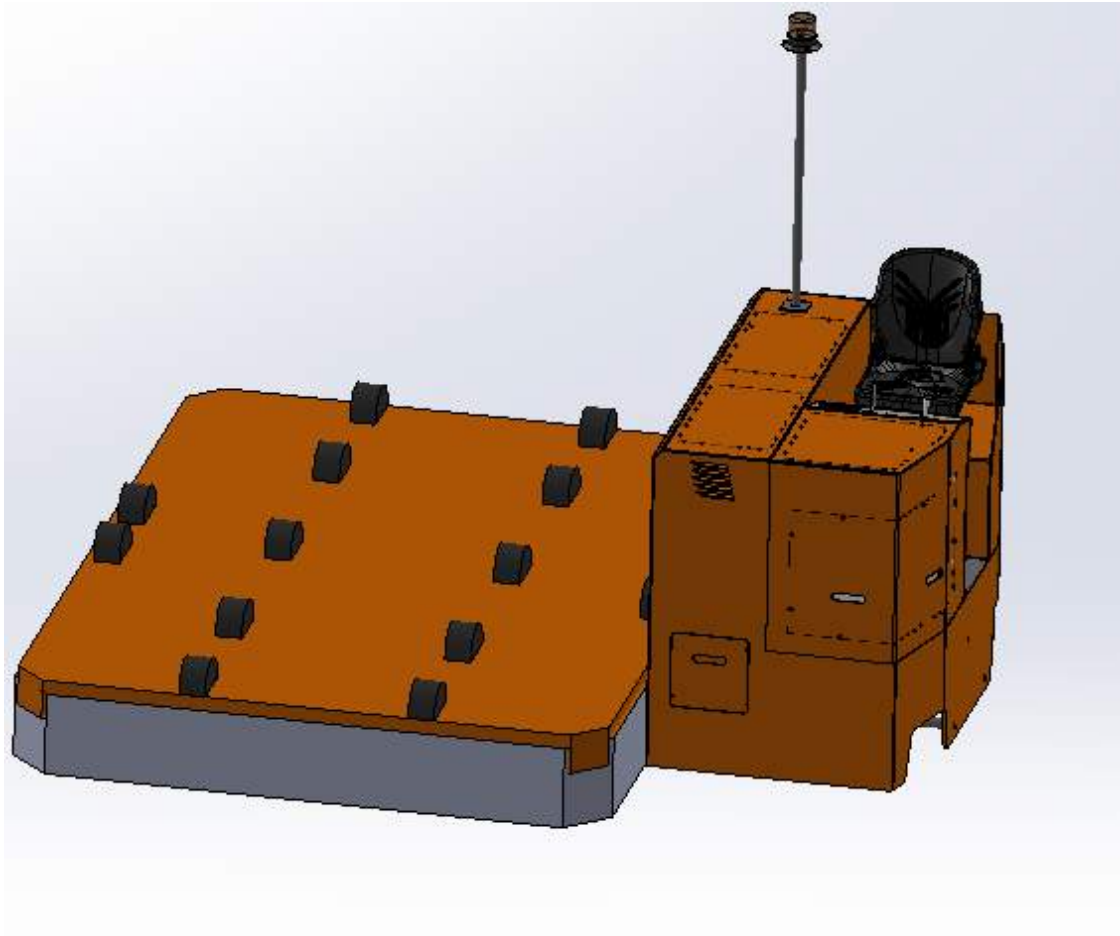


## Features of Dimos INTRAC

- Pay-Load capacity 6.800 kg
- Multi-directional 360° steering system
- Lithium Ionen battery
- Friction drive for ULD transport
- Slave Pallet Lifting device
- Electric drive motors
- Stops front and back side
- Vulcollan wheels
- Adjusting Pins between INTRAC and carrier slave pallet

# THE DIMOS MOVE

Flexible solutions for manual operation



## Dimos INTRAC MOVE

**a combination for manual operation**

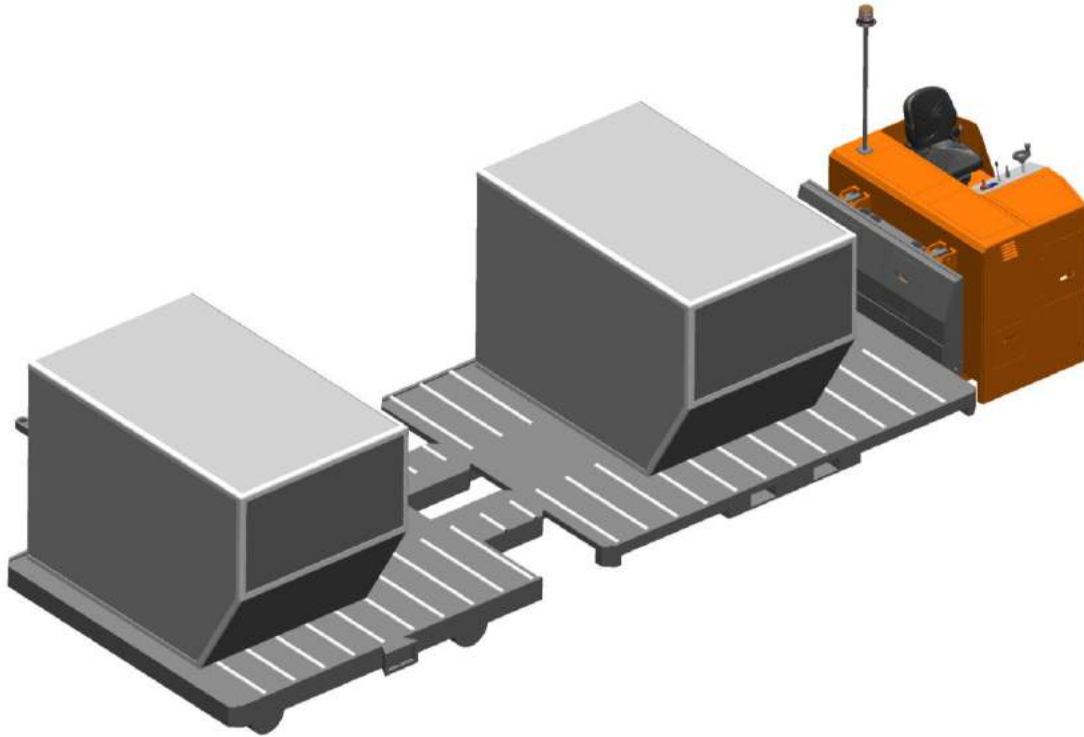
Features of towing vehicle Dimos MOVE  
for Dimos INTRAC

- Electric drive unit
- Lithium Ionen battery
- Vulcollan wheels
- Lifting device
- Connecting cable to Dimos INTRAC
- Comfortable driver cabin



# PALLET MOVER

EGS-7700 for transport of ULD pallets



- The ESG 7700 is designed to accommodate ULD´s with base plate sizes up to 10 (125" x 96")
- It does the handling between the floor locations of the slave pallets, where the system height is 203 mm (8") and transfer positions at stationary ULD handling equipment, where the system height is 508 mm (20")
- Batteries are the source of power for the pallet mover

# PALLET MOVER

## EGS-7700 for transport of ULD pallets - specification

### Load Platform

- Transfer from / to the slave pallet is narrow edge leading while the slave pallets shall be transported with the wide edge leading
- The slave pallets are carried on sturdy fork tines, which can be lowered and lifted to interface with the 508 mm (20 ") system height of fixed ULD handling equipment and the 203 mm (8") of the slave pallets
- Lifting is done by a hydraulic lifting unit. The maximum load is 6,800 kg plus the weight of the slave pallet

