

**K.HARTWALL**

*Logistics Efficiency through Innovation*



**A-MATE®**

AutoMate your load  
carrier movements

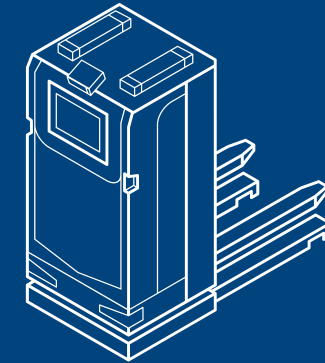


**A-MATE®**

A-MATE® FreeLift is an intelligent mobile robot designed to transport logistic units such as pallets and containers in production and logistics environments such as warehouses and sorting centers, without the need for an on-board operator or driver.

A-MATE's unique benefits include very slim design and advanced driving system to enable agile movements in tight spaces. Due to the powerful free electric lift (no scissors below the forks), the A-MATE can pick up and drop off a maximum load of 1000 kg both from the floor as well as from shelves and conveyors up to one (1) meter height. A-MATE has 360-degree scanner coverage for maximum safety.





“A” in A-MATE  
stands for Accurate  
and Agile

- ✓ Slim design
- ✓ Omnidrive
- ✓ Free navigation
- ✓ 360° safety
- ✓ Long lasting Li-Ion battery
- ✓ 1000 kg electric free-lift

# LOOK AT WHAT YOU CAN ACHIEVE WITH A-MATE® FREELIFT



Reduce your handling costs



Improve the efficiency of  
your internal logistics



Improve ergonomics and  
Health & Safety



Decrease your dependency  
on skilled labor



Transition to partial or  
fully automated operations



## FREE-LIFT



A-MATE is a great solution for multiple use cases as it can both handle loads on the floor as well as deliver to or pick up from conveyor belts and shelves.

## OMNIDRIVE



Omnidirectional driving combined with a very slim design enables the A-MATE to move very efficiently in narrow and tight environments.



• Receiving dock



• Storage



- Picking
- Sorting
- Assembly



• Dispatch area



**A-MATE®**

**A-MATE® FREELIFT AUTOMATES  
PRODUCT FLOWS IN DEMANDING  
ENVIRONMENTS SUCH AS FACTORIES,  
WAREHOUSES AND SORTING CENTERS**

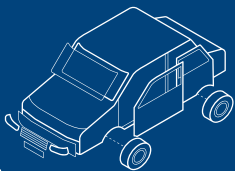


# VERSATILE

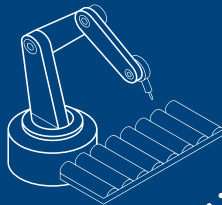
A-MATE® FreeLift transports multiple types of load carriers, empty or full for diverse industries.

A-MATE handles a variety of different units from standard pallets to different sizes of roll cages, cages and dollies. This makes the A-MATE a universal solution for a wide range of intralogistics process flows that needs to be automated in manufacturing, warehousing and sorting operations. A-MATE is designed to operate in demanding industrial environments such as warehouses and production facilities with heavy traffic and rough conditions.

Automotive



Manufacturing



Postal & Parcel



Retail



# RELIABILITY

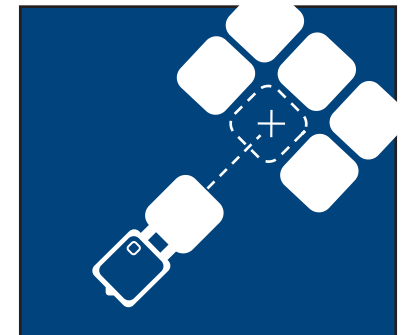
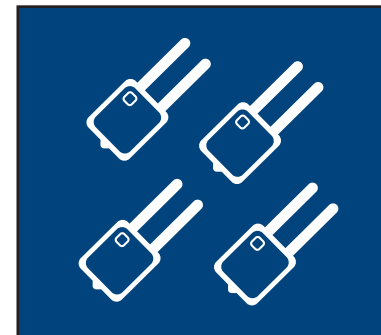
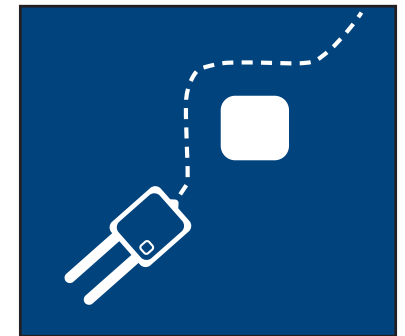
A-MATE® FreeLift works reliably in a constantly changing environment, stand-alone or connected to customer WMS / MES

## Precise Positioning and Navigation

- Natural Feature based navigation
- Full Dynamic Mapping option
- Works reliably in a constantly Changing Environment
- Obstacle avoidance
- Pallet detection / finding

## Fleet-Supervision

- WMS / MES connectivity
- Route planning / shortest routes / congestion management
- Arrival time forecast / priorities / statistics





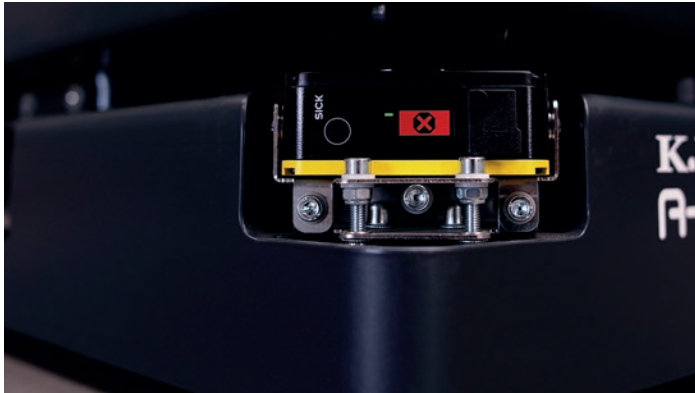
A-MATE  
K.HARTWALL

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K.HARTWALL

K.HARTWALL  
A-MATE

# SAFE INTERACTION WITH HUMANS

A built-in feature at every level  
**SAFETY**



## MULTIPLE SCANNERS

to make the A-MATE a 360° safe mobile robot



## CLEAR LIGHT INDICATORS

for each operation improving interaction in a human environment



## EMERGENCY STOP BUTTONS

visible and accessible at any moment



## EASY TO USE TOUCH-SCREEN HMI

(Human Machine Interface)



Rack and conveyor  
handling

# ENJOY THE FREE LIFT

Free lift allows multiple  
use cases

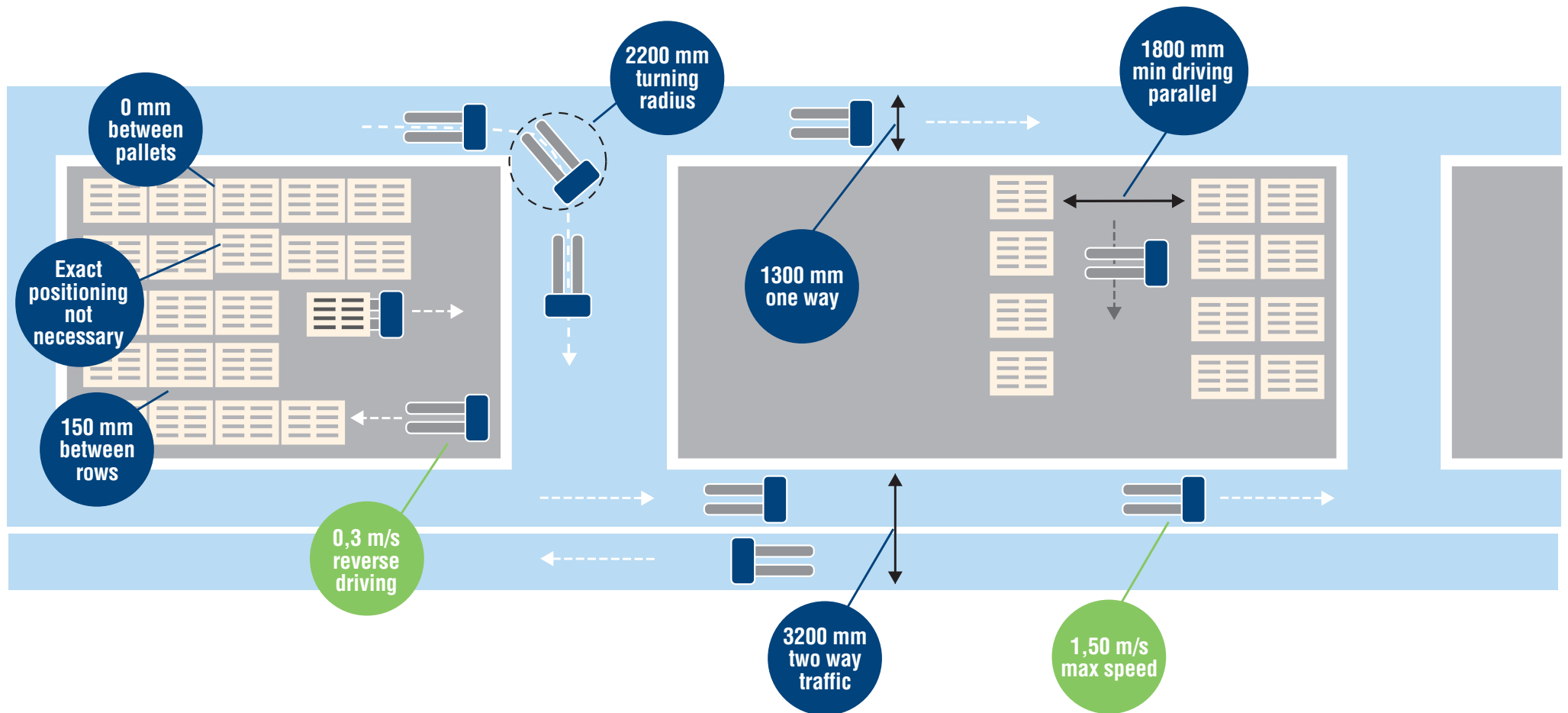


Box and block stacking



Floor handling

# A SOLUTION FOR THE TIGHTEST SPACES




Note: values shown are minimum space requirements - actual values depend on widths of transported loads and the overall customer environment

# KEY FIGURES

<b>Drive concept</b>	Omnidrive
<b>Type</b>	lifting fork
<b>Max. driving speed</b>	5.4 km/h or 1.5 m/s
<b>Lifting height</b>	1100 mm (max shelf height 1000 mm)
<b>Load capacity</b>	1000 kg
<b>Fork length</b>	1200 mm
<b>Fork width</b>	559 mm
<b>Turning radius</b>	2200 mm
<b>Ground clearance</b>	12 mm
<b>Unit tare weight</b>	800 kg
<b>Lifts and transports</b>	all load carriers such as roll cages, pallets, foldable cages
<b>Height</b>	1830 mm (1950 mm with top scanner)
<b>Width</b>	800 mm
<b>Length</b>	1626 mm



A man and a woman are standing in a factory or industrial setting. The man, on the left, has a goatee and is wearing a dark blue t-shirt. He has several tattoos on his left arm, including a large one with a rainbow and a star. The woman, on the right, has short brown hair and is wearing a dark blue polo shirt with the word 'KRAFTWE' visible on the chest. She is wearing a red and black beaded bracelet on her left wrist. Both are smiling and have their arms crossed. The background shows industrial machinery and equipment.

**We are serious  
about your  
automation.**

**Christian Fischer and Natascha Falke**



We at K. Hartwall strive to create future-fit logistics solutions that answer the needs of our customers and bolsters their industry development. We know what it takes to make robust, industrial-grade AGV's for the most demanding environments.

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**10**  
**YEARS**

Nearly ten years of expertise in building world-class AGV's

**100**  
**AGV'S**

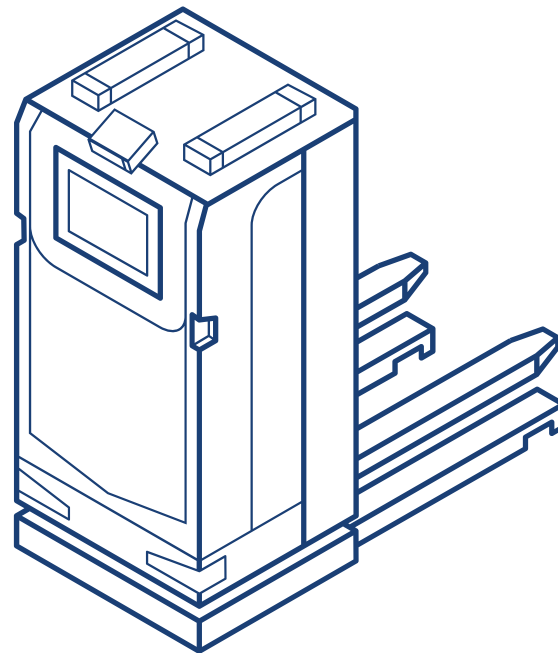
More than hundred implemented AGV's

**90**  
**YEARS**

Over ninety years of design and innovation

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Watch the  
A-MATE video



Watch the  
A-MATE animation



**A-MATE**®

**MAKE THE NEXT  
SMART MOVE  
IN LOGISTICS**