

**AUTONOMOUS
MOBILE
ROBOT**

AUTONOMOUS MATERIAL TRANSPORTATION

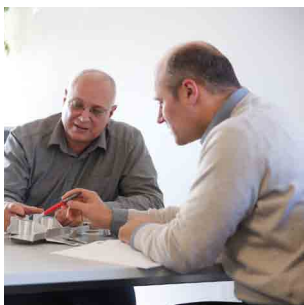
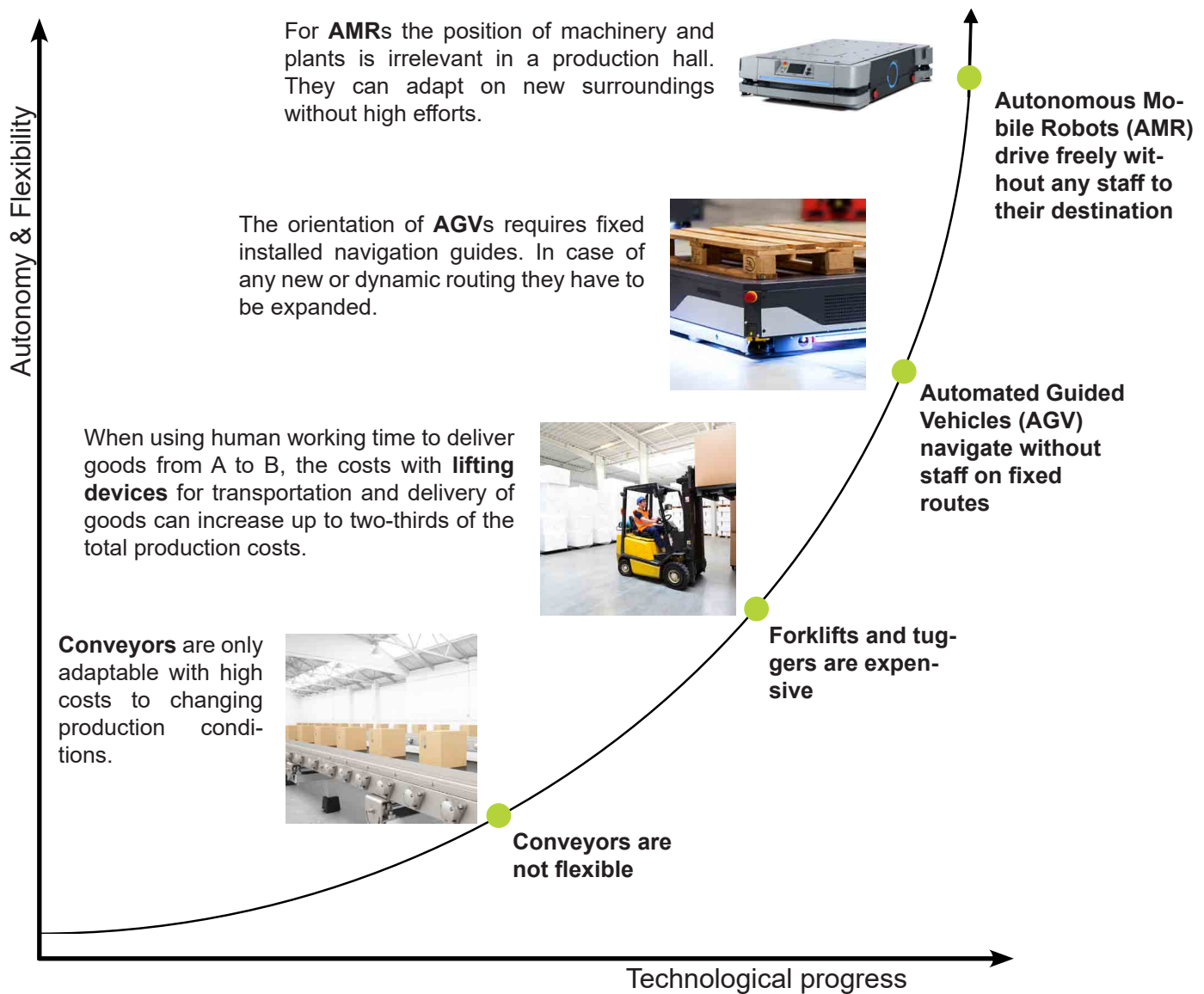


**OUR SYSTEM.
YOUR SOLUTION.**

www.MartinSystems.eu

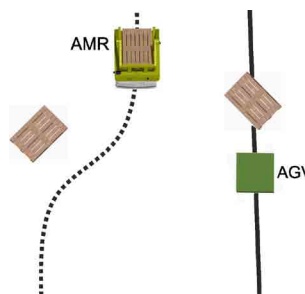
SPECIAL CATALOGUE AMR

FROM CONVEYOR BELT TO CONVEYOR SYSTEM - THE DIFFERENCE IS FLEXIBILITY -



Customer Requirements.

- Substitution of inflexible conveyors
- Minimization the risk of accidents
- Increase of productivity
- Reduction of total costs



AMR vs. AGV.

- AMR safely avoids obstacles without stopping
- AGV stops at obstacles and remains still until obstacles are removed

INDUSTRY INDEPENDENT MATERIAL TRANSPORTATION - FOR LOW AND HEAVY PAYLOADS -

Areas of application.

The area of application of autonomous mobile robots extends to all tasks where goods have to be delivered. Therefore, the AMR is also available with an ESD- or clean room design.

1. transport container is ready for pickup.

2. Mobile robot picks up transport container.

3. Mobile robot delivers transport container to destination.

For low payloads - AMR OMRON LD90/250.

The mobile robot takes the material transportation of separate boxes.

1. Pallet is ready for pickup.

2. Mobile robot picks up pallet.

3. Mobile robot puts pallet on its loading area.

Please find more information on
www.MartinSystems.eu.

4. Mobile robot delivers pallet to destination (without overhang).

For high payloads - AMR OMRON HD1500.

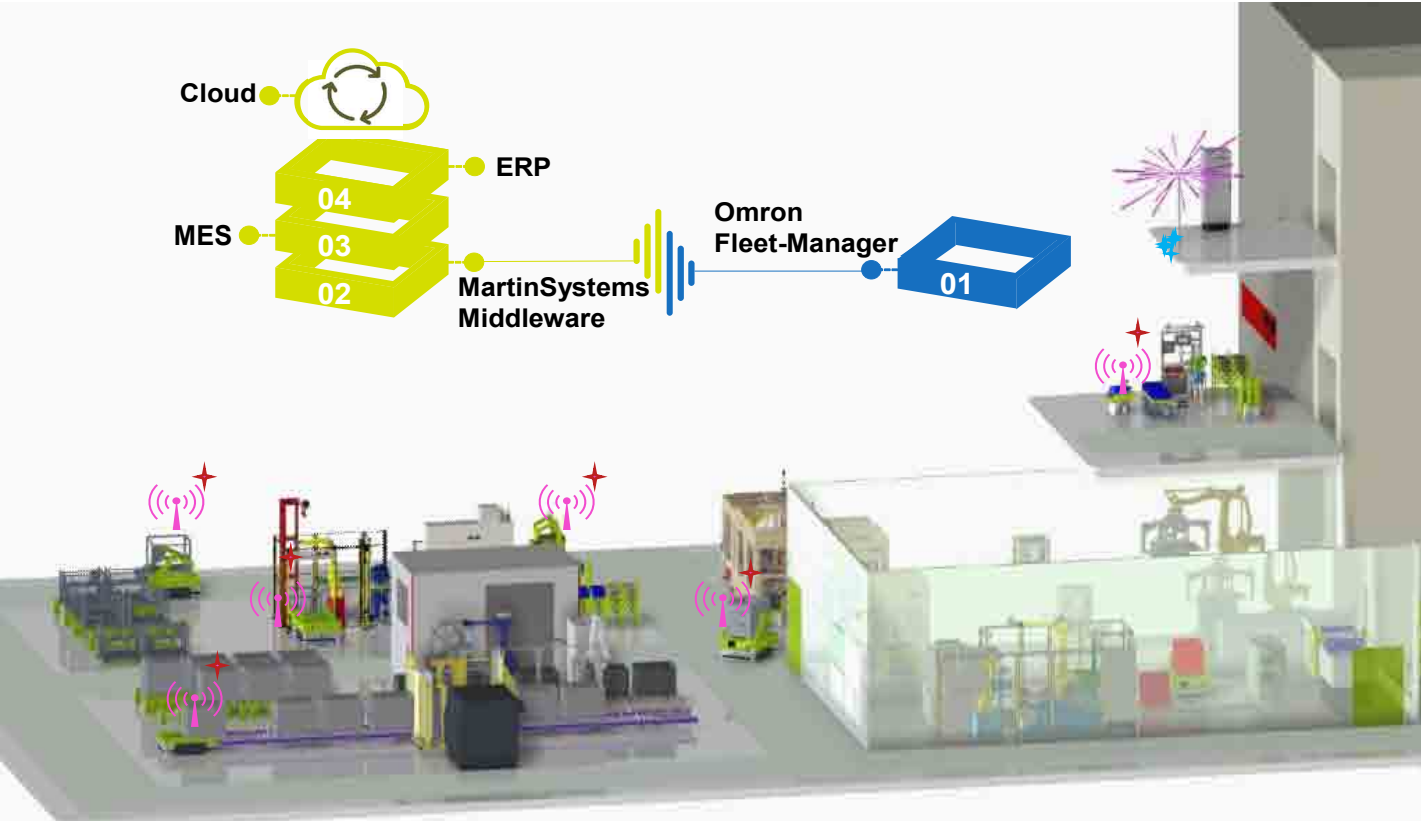
The mobile robot takes the material transportation of complete euro pallets.



INDUSTRY INDEPENDENT MATERIAL TRANSPORTATION
- RELIABLE OPERATION ROUND THE CLOCK -

Fleet Manager.

Due to the industry-leading fleet manager there can be used different mobile robots with one and the same system. This allows a fully automated production.



MartinSystems Middleware.

- Automated Logistic Job Handling
- Automated Manufacturing Job Handling
- Option: Connection to MES/ERP System
- Option: Interface to machine control

OMRON Fleet-Manager.

- Intelligent Job Assignment to AMR
- AMR Traffic Control
- AMR Charge Management
- AMR Skill Administration

Interactive, Integrated, Intelligent.

Interactive	Integrated	Intelligent
A Fleet Manager controls up to 100 robots	customized superstructures possible	optimizes routing to surroundings
intuitive setup on PCs and tablets	compatible with other Omron robots	Routing adaptable to changing conditions on the fly
works safely with people	Applications are extended continuously	Information and algorithms improve availability and quality



SUCCESSFUL FACTORY AUTOMATION - INTERACTIVE, INTEGRATED AND INTELLIGENT -



Intelligent Logistics.

The complete logistics process is mapped with one and the same technology. This includes mobile robot as well as fleet management. The benefit is an improved:

- Continuous supply of goods
- Feedback of ongoing works in real-time
- Feedback about manufactured parts and parts which have to be tested
- Transparency about parts availability due to complete traceability



More Safety.

Mobile robots monitor their surroundings and adapt speed and driving direction continuously. The safety of people is increased due to:

- Increase of safety distance with increasing robot speed
- Delayed speed adjustment of driving speed after obstacle removal
- Dynamic safety zones for driving forward and reverse, rotating left and right, driving in an arc to the left and right, docking station, no movement zone, low speed zone



Powerful Fleet Management.

The enterprise manager is the key interface for each fleet application. He optimizes order management, traffic flow and charge level of the mobile robots. This includes:

- Display of the current robot position and robot status
- Assignment, optimization and prioritization of transport orders
- Traffic control to optimize the traffic flow
- MobilePlanner for managing robots or fleet on PC
- Interfaces for the integration of other systems (MES, WMS, ERP, etc.)







Industries.

Autonomous mobile robots are used industry independent, for example:

- Automotive
- Electronics
- Plastics
- Food
- Logistics
- Aerospace
- Medical
- Furniture
- General industry and all others

AUTOMATION WITHOUT INFLEXIBLE LINKAGE - OUR FLEET AT A GLANCE -

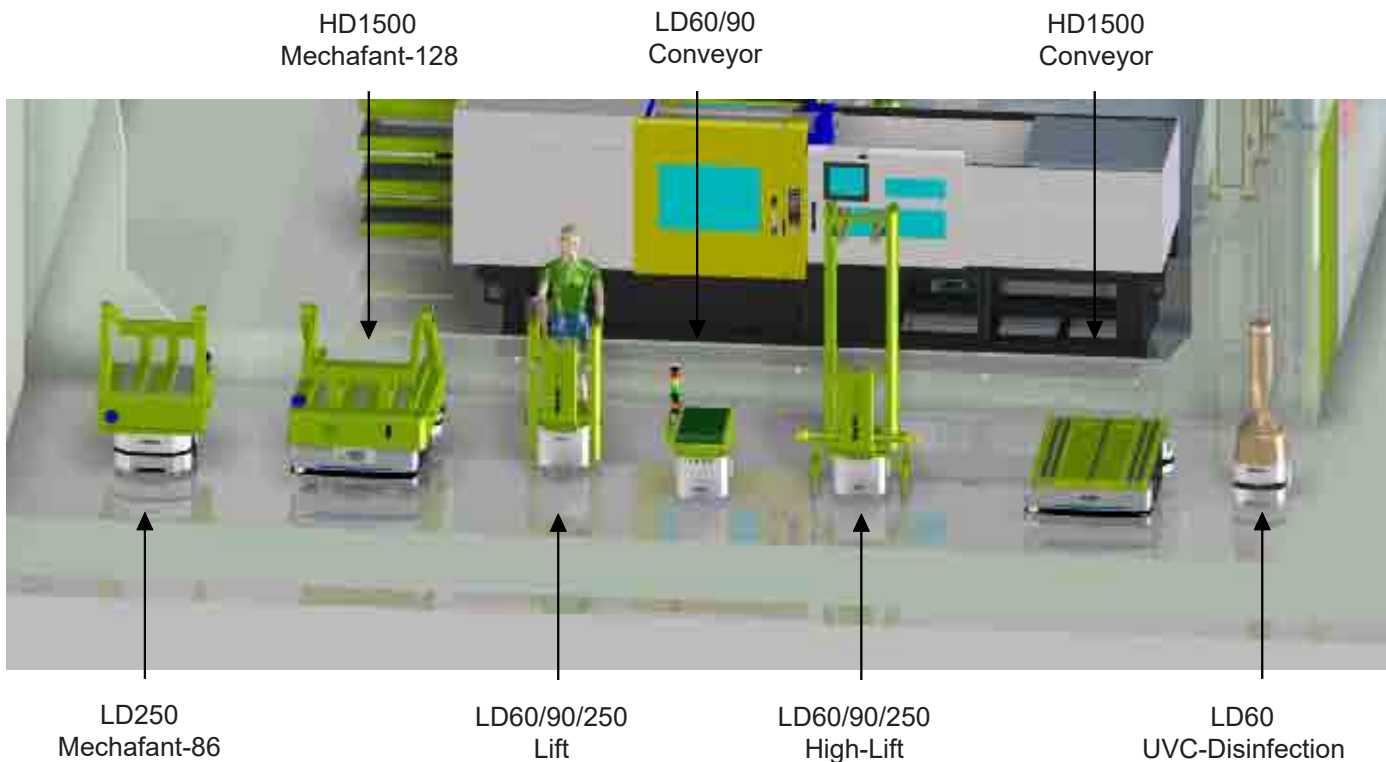
Technical data.

		LD 60	LD90	LD250	HD1500
					
Width	[mm]	500	500	720	1.195
Length	[mm]	699	699	969	1.696
Height	[mm]	383	383	380	370
Weight incl. battery	[kg]	62	62	148	506,5
Payload [kg]	[kg]	60	90	250	1.500
Speed	[m/sec]	1,8	1,35	1,2	1,8
Power run time (full load)	[h]	15	15	13	9
Power recharge time	[h]	4	4	4	0,5
ESD-design	[-]	yes	yes	in preparation	-
Cleanroom	[-]	ISO 5	ISO 5	ISO 5	-

Applications.

The mobile robots are available with different superstructures. They are ready for immediate use, because no construction measures are required to enable them to drive freely in their surroundings.

Our range is being constantly expanded! Please find all application modules on www.MartinSystems.eu.



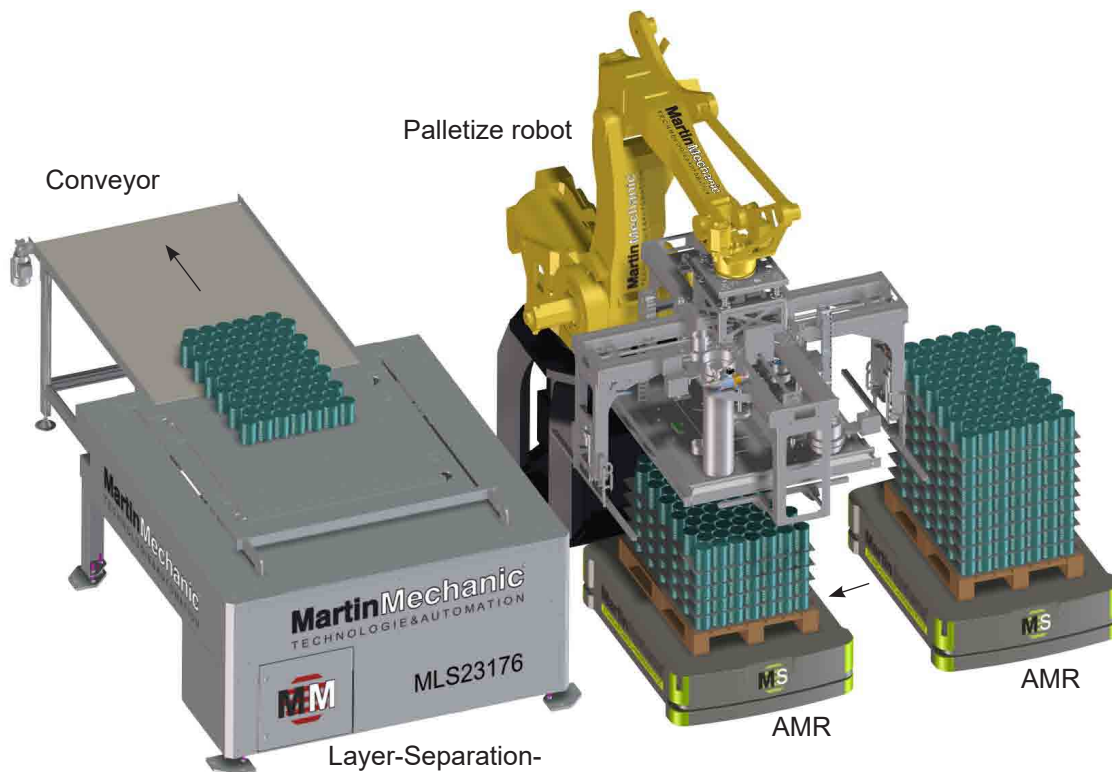


YOU DO NOT ONLY NEED A ROBOT - YOU NEED A COMPLETE SYSTEM -

Application example: Goods picking in logistics centres.

The AMR delivers a fully loaded euro pallet to the commissioning. The palletize robot picks up a whole layer and takes it to the Layer-Separation-Table. The layer between the goods is shifted downwards and the goods

are carefully passed to the conveyor. From this place the goods are transported to their destination with further conveyors.



MartinSystems.

If you make your decision to MartinSystems, you will not only get a mobile robot. You will get a fully integrated solution for automation. Therefore we are working together with Omron, the worldwide leading producer of industrial mobile robots and we are proud to be a certified Omron Solution Partner since 2018. We as an experienced system integrator will accompany you through the whole implementation process.

From consultation, analysis to introduction and further support. This is what sets us apart! We are looking forward to welcome you. Please feel free to contact us.

SUCCESS THROUGH A PRODUCTIVE FUTURE!

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More informationen about our standard machinery please find on
www.MartinSystems.eu

