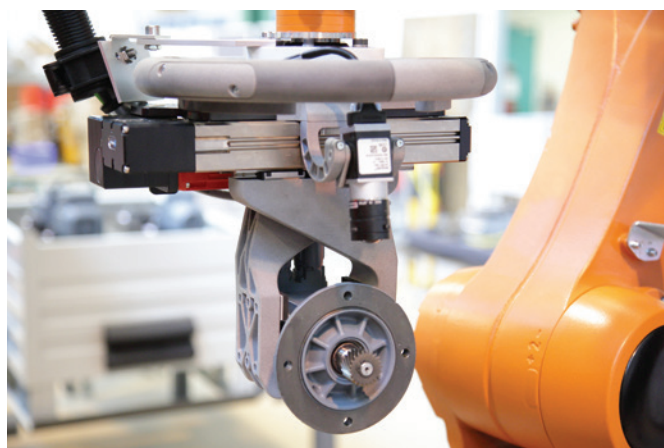


MAXOLUTION® mobile systems

Catalog 2018



INDUSTRY 4.0



We're with you all the way to the Sm@rt Factory

Maximum flexibility and efficiency in your Sm@rt Factory

Producing batch sizes of one and optimizing costs are what's expected from the factory of the future.

Perfectly implemented lean principles and methods based on Industry 4.0 create the basis for modular and efficient production, right down to batch sizes of just one unit, if required. The key to success lies in a fully networked value creation chain with intelligent collaboration between humans and technology, automated assistance and cutting-edge, future-proof concepts for material flow and logistics. Fluctuating requirements call for constantly self-adapting logistics processes. This is made possible by modules that are networked by cellular transportation systems. The mobile systems designed by SEW-EURODRIVE combine the benefits of stationary conveyor technology that ensure process, system and staff safety with maximum flexibility and scalability. Besides performing purely transportation tasks, extended functions and interfaces enable these systems to

assist people with logistics and production processes in the form of intelligent workbenches or collaborative robots, for example.

As an automation partner and system supplier, SEW-EURODRIVE also provides a broad basis of infrastructure systems and software solutions – all adapted to suit your processes and interfaces. Benefit from our wealth of experience. As well as product and system solutions, we can offer advice on factory design and production automation. Our experts work with you to plan, configure and implement your process solutions. Take part in our seminars and training courses and put into practice your vision of Industry 4.0.

Find out more at:

www.sew-eurodrive.de/en/smart-factory



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MAXOLUTION® mobile systems



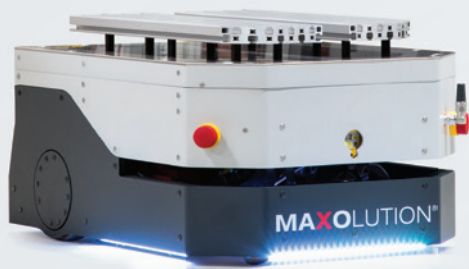
Handling assistant (MAXO-MS-HA)
Page 13



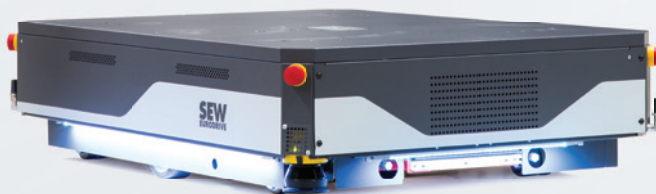
Logistics assistant (MAXO-MS-LA) / assembly assistant (MAXO-MS-AA)
Page 15



Assembly assistant (MAXO-MS-AA)
Page 10



Transportation vehicle MAXO-MS-TV005
Page 6



Transportation vehicle MAXO-MS-TV015
Page 7



Logistics assistant (MAXO-MS-LA)
Page 11



Transportation vehicle MAXO-MS-TV030
Page 8



Logistics assistant (MAXO-MS-LA) / assembly assistant (MAXO-MS-AA)
Page 14



Logistics capsule (MAXO-MS-CA)
Page 16

Transportation vehicle (MAXO-MS-TV005)



Specification

- Dimensions: L = 845 mm, W = 600 mm, H = 415 – 635 mm
- Weight: Min. 150 kg
- Load capacity: Max. 500 kg
- Speed: Max. 1.4 m/s
- Positioning accuracy: +/- 10 mm
- Hoist: Optional
- Energy supply: Contact charging, batteries, energy storage
- Navigation: SLAM, optical/RFID, RFID
- Communication: WLAN

Description

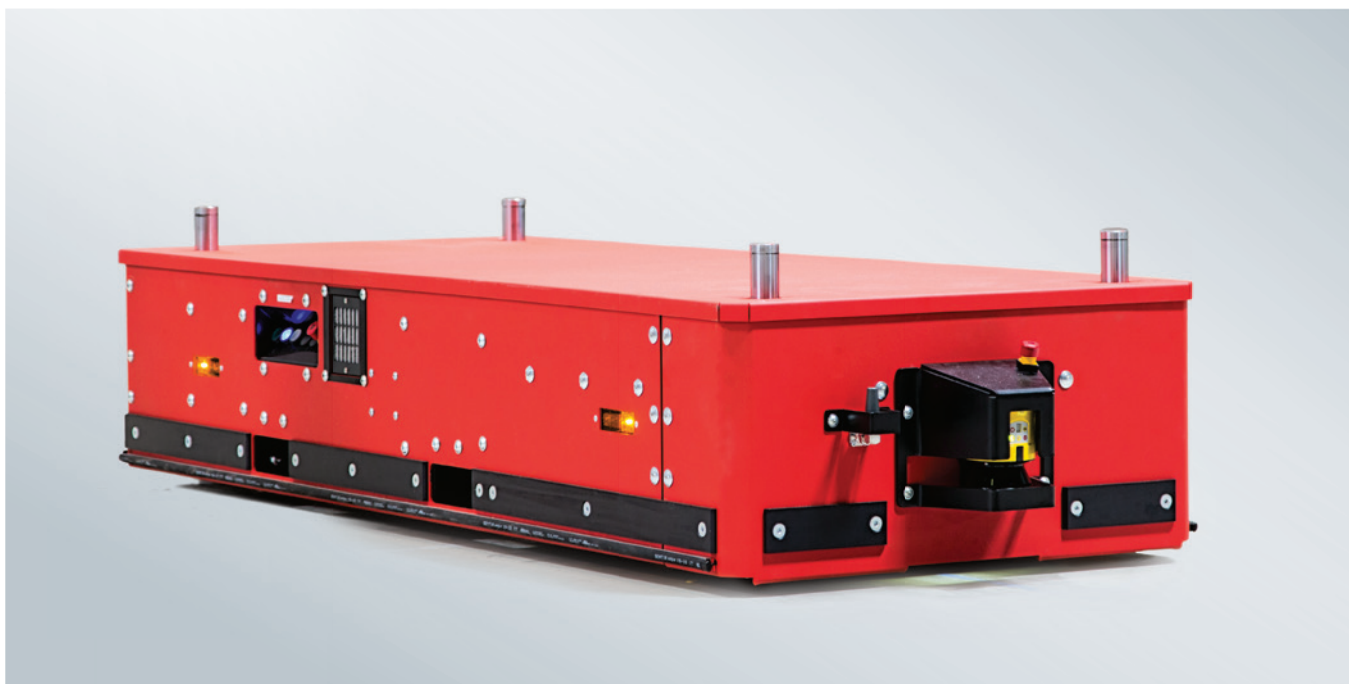
- Standardized, modular and compact vehicle
- Scalable thanks to different energy, navigation and load handling modules
- Dedicated to transportation tasks in production and distribution logistics
- 3-wheel geometry for compact layout and agility
- Load handling devices:
 - Roller conveyor for trays
 - Project-specific definition
 - Customized solutions via standard interface
- Load devices:
 - Boxes
 - Trays
 - Racks

Transportation vehicle (MAXO-MS-TV015)



Specification	<ul style="list-style-type: none"> – Dimensions: L = 1 420 mm, W = 999 mm, H = 337 mm – Weight: Min. 785 kg – Load capacity: Max. 1 200 kg – Speed: Max. 1.4 m/s – Positioning accuracy: +/-10 mm – Hoist: 100 mm – Energy supply: Inductive charging, contact charging, batteries, energy storage – Navigation: SLAM, inductive/RFID, optical/RFID – Communication: WLAN
Description	<ul style="list-style-type: none"> – Standardized, compact vehicle with hoist for up to 1 200 kg load capacity – Dedicated to transportation tasks in production and distribution logistics – Central drive chassis geometry for compact layouts – Load handling devices: <ul style="list-style-type: none"> - Chain conveyors for pallets - Underride solutions for pallets or racks - Project-specific definition - Customized solutions via standard interface – Load devices: <ul style="list-style-type: none"> - Pallets - Containers - Racks

Transportation vehicle (MAXO-MS-TV030)



Specification	<ul style="list-style-type: none"> – Dimensions: L = 2 110 mm, W = 830 mm, H = 400 mm – Weight: Min. 790 kg – Load capacity: Max. 3 000 kg – Speed: Max. 1 m/s – Positioning accuracy: +/-10 mm – Hoist: 80 mm – Energy supply: Inductive charging, contact charging, batteries, energy storage – Navigation: SLAM, inductive, optical/RFID, RFID – Communication: WLAN
Description	<ul style="list-style-type: none"> – Standardized, modular vehicle for load capacity up to 3 000 kg – Dedicated to transportation tasks in production and distribution logistics – Front wheel drive mechanic – Suitable for complex layouts thanks to innovative kinematic control system – Load handling devices: <ul style="list-style-type: none"> - Chain conveyors for pallets - Underride solutions for pallets or racks - Project-specific definition - Customized solutions via standard interface – Load devices: <ul style="list-style-type: none"> - Pallets - Containers - Racks



Assembly assistant (MAXO-MS-AA)



Specification

- Dimensions: L = 1 000 mm, W = 550 mm, H = 900 mm
- Weight: Min. 200 kg
- Load capacity: Max. 250 kg
- Speed: Max. 0.3 m/s
- Positioning accuracy: +/-2 mm
- Hoist: 200 mm
- Energy supply: Inductive charging
- Navigation: Inductive, RFID transponder
- Communication: WLAN

Description

- Travels to the individual workstations as a mobile workbench and adapts to the work height
- Use of CPS-based automation
- Provision of interactive instructions for the assembly sequence

Logistics assistant (MAXO-MS-LA)



Specification	<ul style="list-style-type: none"> – Dimensions: L = 1 000 mm, W = 1 000 mm, H = 300 mm – Weight: Min. 383 kg – Load capacity: Max. 1 500 kg – Speed: Max. 1.5 m/s – Positioning accuracy: +/-2 mm – Hoist: Max. 245 mm – Energy supply: Inductive charging, hybrid storage – Navigation: SLAM, optical, RFID transponder, gyro sensor – Communication: LightLAN, WLAN
Description	<ul style="list-style-type: none"> – Carries out logistics tasks autonomously and cooperatively – Use of swarm intelligence in logistics – Dynamic route planning in cooperation with neighboring vehicles – Implements loose chain of process modules



Handling assistant (MAXO-MS-HA)



Specification	<ul style="list-style-type: none"> – Dimensions: L = 1 000 mm, W = 850 mm, H = 900 mm – Weight: Min. 500 kg – Load capacity: Max. 10 kg – Speed: Max. 1 m/s – Robot speed: 2 m/s (linear) – Positioning accuracy: +/-2 mm – Hoist: - – Energy supply: Inductive charging, batteries, double-layer capacitor energy storage – Navigation: Inductive, optical, RFID transponder, gyro sensor, camera-based QR code – Communication: WLAN
Description	<ul style="list-style-type: none"> – Optimized support of human capabilities thanks to a mobile, autonomous, cooperative robot – Diverse range of potential uses thanks to variety of grippers: <ul style="list-style-type: none"> - Assembly and joining processes - Automated machine loading - Automated machine unloading – Mobile platform for max. flexibility

Logistics assistant (MAXO-MS-LA) / assembly assistant (MAXO-MS-AA)



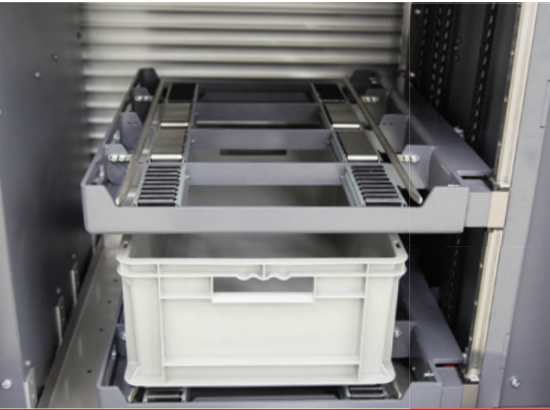
Specification	<ul style="list-style-type: none"> – Dimensions: L = 1 200 mm, W = 600 mm, H = 715 – 1 015 mm – Weight: Min. 450 kg – Load capacity: Max. 350 kg – Speed: Min 0.3 m/s to max. 1 m/s – Positioning accuracy: +/-2 mm to +/-25 mm – Hoist: Max. 300 mm – Energy supply: Inductive charging, double-layer capacitor energy storage – Navigation: SLAM, inductive – Communication: LightLAN, WLAN
Description	<ul style="list-style-type: none"> – Assisting, mobile system enables human-machine interaction – Can be used as a mobile logistics and assembly assistant due to two adequate modes: <ul style="list-style-type: none"> - Assembly mode: Ensures safe working directly on the mobile assistant - Logistics mode: Transportation between individual factory modules with speed-dependent safety zones – Ergonomics: Adapts working height – Customized load handling level for different applications

Logistics assistant (MAXO-MS-LA) / assembly assistant (MAXO-MS-AA)



Specification	<ul style="list-style-type: none"> – Dimensions: L = 860 mm, W = 690 mm, H = 565 – 1 070 mm – Weight: Min. 250 kg – Load capacity: Max. 200 kg – Speed: Min 0.7 m/s to max. 1.5 m/s – Positioning accuracy: +/-2 mm – Hoist: Max. 500 mm – Energy supply: Inductive charging, hybrid storage – Navigation: SLAM, optical, RFID transponder, gyro sensor – Communication: LightLAN, WLAN
Description	<ul style="list-style-type: none"> – Assisting, mobile system enables human-machine interaction – Transportation of small Load devices: – Can be used as a mobile logistics and assembly assistant – Ergonomics: Adapts working height

Concept study – logistics capsule (MAXO-MS-CA)



Specification

- Dimensions: L = 1 000 mm, W = 1 000 mm, H = 300 mm
- Weight: Min. 400 kg
- Load capacity: Max. 1 500 kg
- Speed: Max. 1.5 m/s
- Positioning accuracy: +/-2 mm
- Hoist: -
- Energy supply: Inductive charging, hybrid storage
- Navigation: SLAM, optical, RFID transponder, gyro sensor
- Communication: WLAN

Description

- Self-propelled standardized vehicles for transportation of goods
- Autonomous transportation of goods in packaging units
- Transportation inside and outside the plant
- Autonomous interaction with other systems involved for a smooth exchange of goods
- Integrated logistics chain (data and material flow levels)



INDUSTRY 4.0

Further information

on the Sm@rt Factory, products and services for pioneering drive solutions from SEW-EURODRIVE can be found here:



www.sew-eurodrive.de/en/smart-factory