



# MOBOT® FlatRunner MW HT mobile robot


An autonomous mobile robot with which you will automate internal transport. Ideal for transporting medium-sized loads, e.g. litter trays or parcels. It travels independently along the programmed route.

- Fast implementation without changes in the workplace
- Easy to use
- Works safely with people while carrying your loads
- Increases production efficiency and reduces costs
- LMS navigation ensures the autonomy of operation and flexibility of applications
- The omnidirectional drive ensures freedom of maneuver and reduces the time it takes to complete tasks
- For transporting heavy loads on production lines and in warehouses




 operating time up to 5 h  
on a single charge


 payload up to 500 kg

 Wi-Fi communication

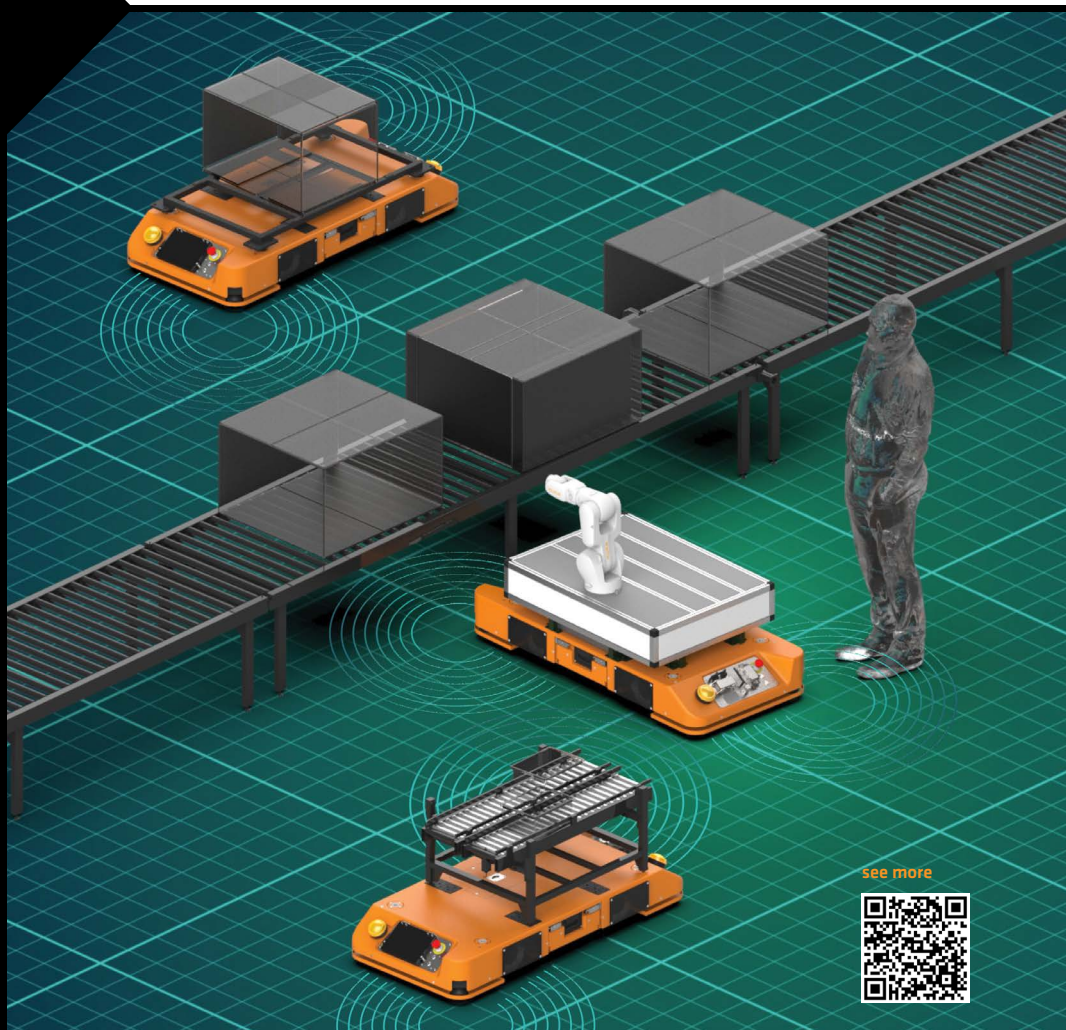
 dimensions  
1600 x 710 x 220 mm

 max speed  
3,5 km/h

 LMS system,  
line navigation using  
the vision system

 Mecanum wheels  
-movement in any direction

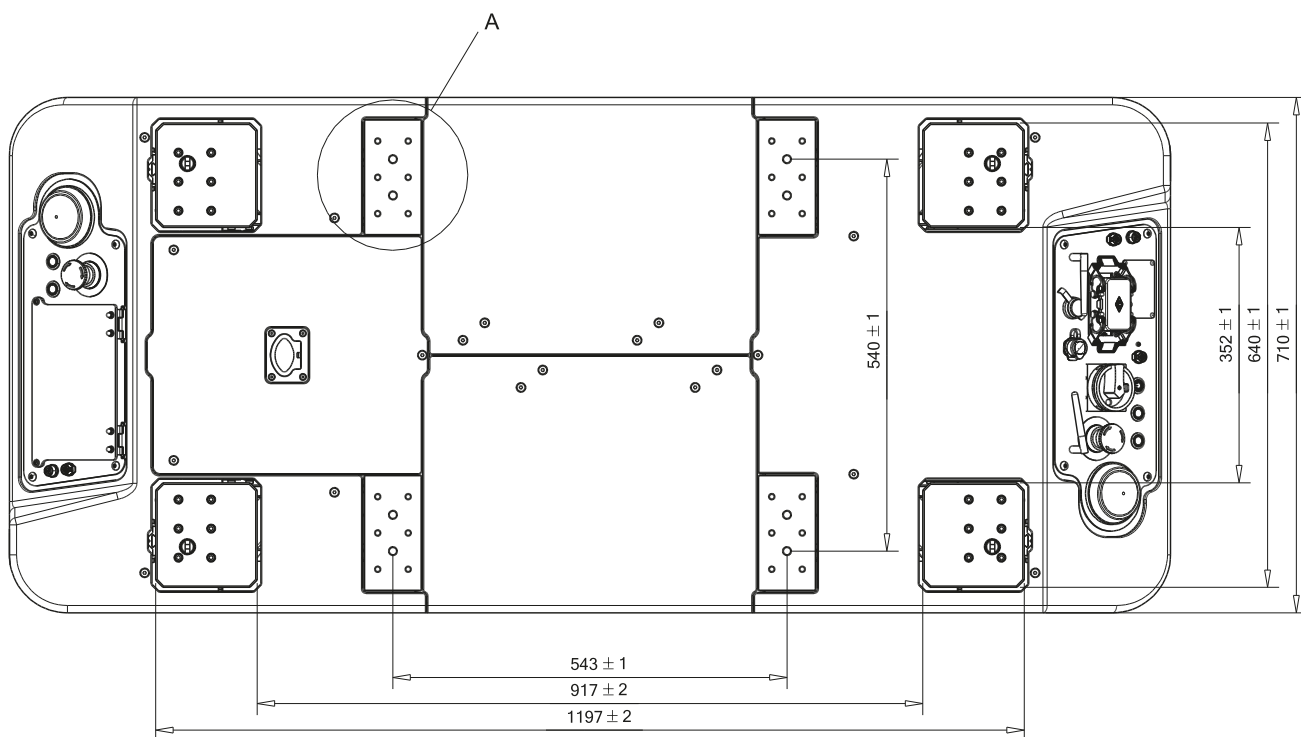
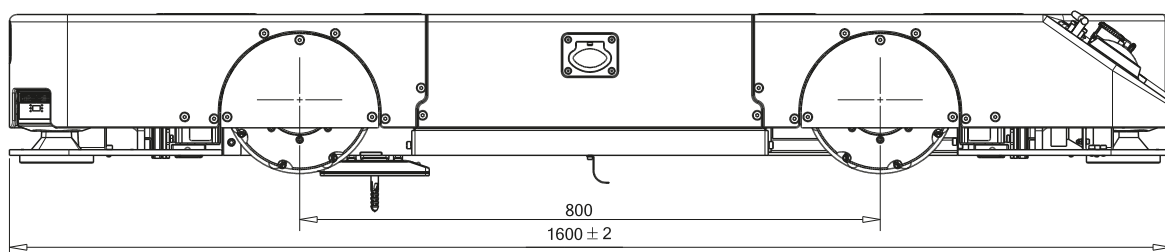
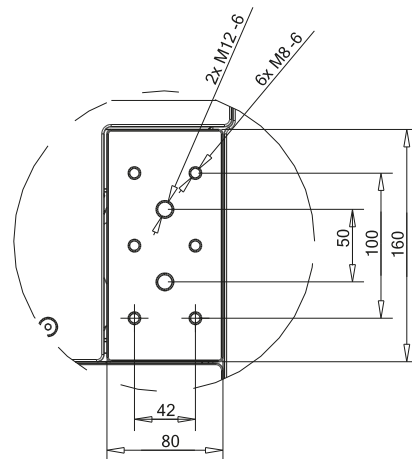
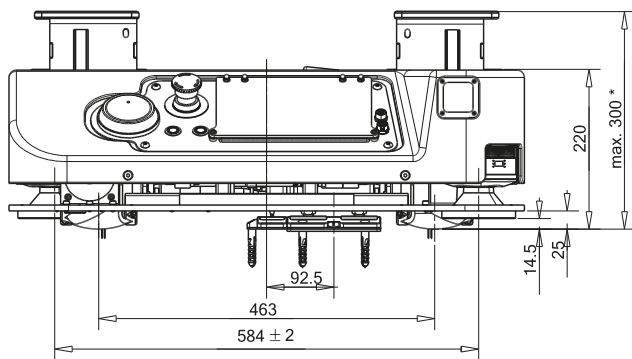
**Intended use:** transport of heavy  
loads in industry, logistics



see more



Robot type	<b>MOBOT®AGV FlatRunner MW HT</b>
<b>Payload and transport method</b>	
Transport method	Fastening the load on the upper surface of the robot with 4 M8 screws or using the load lifting system* * raising the load to a height of 70 mm (allows lifting the load reaching the ground above navigation and safety scanners)
Permissible total weight of the cart with load	500 kg
<b>Power supply</b>	
Manual battery charging connector	YES (44 V DC, max. 20 A)
Automatic battery charging connector	A contact connector mounted on the bottom of the robot enables automatic battery charging during operation
Robot power supply	50 Ah Li-Ion battery / 44 V The battery is mounted in a cassette allowing for quick replacement in the robot
Charger	- 20 A / 44 V charger connected manually - Optional charging station with 20A / 44 V charger for charging replaceable battery cartridges - Optional contact module for automatic charging
Operating time at full load	~ 8 h
Operating time in standby mode	~ 40 h
Battery charging time	~2,5 h
<b>Speed and performance</b>	
Maximal speed	3,5 km/h
Nominal power	2400 W
Movement directions	Possibility of riding in all directions thanks to Mecanum wheels
Turning radius	Possibility of turning in place
Maximum surface slope	Robot designed for driving on a flat surface
<b>Navigation</b>	
Navigation	Natural and intelligent navigation using the LMS * Navigating the line using a vision system * LMS - laser navigation system
<b>Communication</b>	
Communication	2.4 GHz Wi-Fi, optional 2.4 GHz industrial radio module (RS232)
Connector	- Ethernet RJ45 - communication with PC, MODBUS TCP / IP - 18 pin connector, E-Stopx2, Reset, RS485 (Modbus RTU), CANopen, 2 x input, 24 VDC power supply output (2A) + 24 VDC power supply output (10 A)
<b>Drive and control</b>	
Drive	4x BLDC servo motor, wheels diameter 203,2 mm
Control and steering	- 1 x 7 "touch operator panel - 2 x emergency stop - 2 x emergency stop reset confirmation buttons - 1 x main power switch - 2 x function button - 1 x USB connector - 1 x Ethernet connector
<b>Sensors</b>	
Sensors	- 2 x vision system for tracking the line - 2 x 2D laser scanner with security function
Signaling	- 2 x light and sound signaling devices - 2 x speaker (voice / music messages) - 4 x direction indicator
<b>Environment</b>	
Operating temperature range	5 ÷ 45 °C
Humidity range	< 80 %, no condensation
Protection degree	IP30
The intensity of external light	< 1500 lx
<b>Dimensions and weight</b>	
Dimensions (L x W x H)	1600 x 710 x 220 mm
Total weight (with batteries)	~200 kg



All dimensions are approximate values and can change.



## Accessories

### Robotic arm adapter

It is a flexible solution ensuring maximum mobility and autonomous robot operation that optimizes production processes. The adapter is equipped with four additional wheels to ensure perfect stability, as well as a housing for a robot controller.

### Adapter with automatic rollers

Designed for transporting various types of containers, packages. The system consists of an automatic roller feeder attached to an AGV robot using a special adapter. The rollers are driven by motors powered by robot batteries and ensure a fast and smooth flow of goods.

This solution maximizes efficiency, optimizes material flow, and allows better use of available space.

### Automatic load lifting system

The load lifting system enables automatic picking and placing of pallets and large cargo to compatible docks. It allows for lifting loads to a height of 70 mm (to lift the load reaching over the substrate navigation scanners and security).