



# Automate Workflows in Your Facility

Built to deliver the highest throughput in its heavy class, OTTO 1200 is a compact AMR that moves more in tight spaces. Equipped with patented adaptive fieldset technology, OTTO 1200 quickly maneuvers around people and turns, delivering best-in-class average speed without compromising on safety.

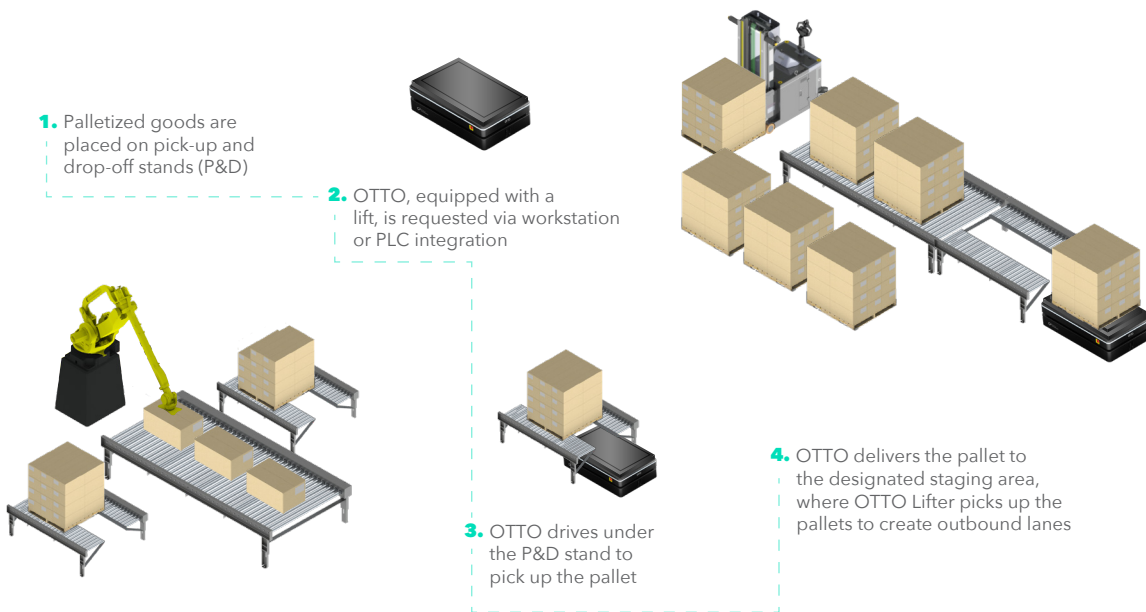
## PALLETIZED FINISHED GOODS TO OUTBOUND

1. Palletized goods are placed on pick-up and drop-off stands (P&D)

2. OTTO, equipped with a lift, is requested via workstation or PLC integration

3. OTTO drives under the P&D stand to pick up the pallet

4. OTTO delivers the pallet to the designated staging area, where OTTO Lifter picks up the pallets to create outbound lanes



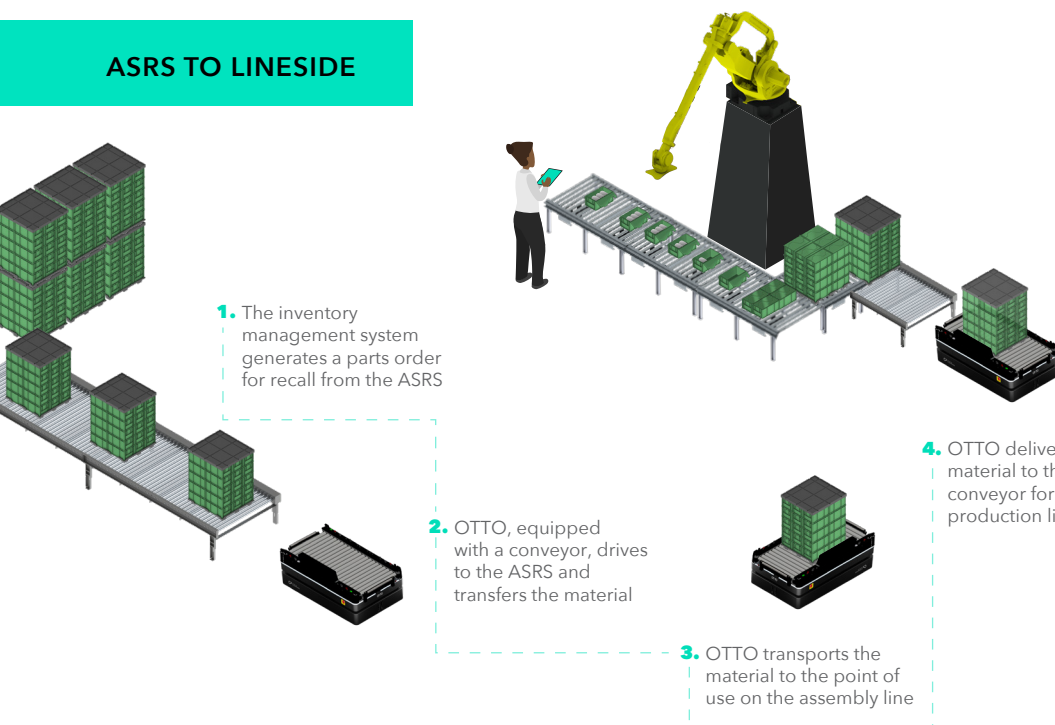
## ASRS TO LINESIDE

1. The inventory management system generates a parts order for recall from the ASRS

2. OTTO, equipped with a conveyor, drives to the ASRS and transfers the material

3. OTTO transports the material to the point of use on the assembly line

4. OTTO delivers the material to the lineside conveyor for use on the production line



### REDUCE COSTS

OTTO reduces time wasted and variability with manual material handling by operating on a lean approach.



### ADDRESS LABOR SHORTAGE

OTTO AMRs enable businesses to address labor shortages and eliminate FTE spend on low value and repetitive work.



### ACHIEVE ENTERPRISE SCALE

Unlike other AMR providers, OTTO Motors' customers are able to operate at scale with 1 to 100 robots to optimize productivity.



### OPTIMIZE PRODUCTION

OTTO enables flexibility in material handling and faster product cycles that can ramp up and down based on demand.



### IMPROVE SAFETY

OTTO Motors AMRs are uncompromising when it comes to safety.



## OTTO 1200

OTTO 1200 moves heavy payloads up to 1,200 kg (2,640 lb) in the tightest and most dynamic environments. Designed with a service-first approach, OTTO 1200 features rapid access drawers for simplified maintenance to achieve maximum uptime.

### PERFORMANCE

<b>Max Capacity</b>	1200 kg (2640 lb) Includes Payload and Attachment, if any	<b>Max. Turning Speed</b>	0.8 rad/sec (45°/sec)
<b>Max. Speed</b>	1.5 m/sec (3.4 mph)	<b>Max. Docking Speed</b>	0.3 m/sec (0.7 mph)
<b>Docking Accuracy Standard</b>	±10mm (x,y), ± 1° φ (yaw) Repeatable to 3σ		

### CHASSIS

<b>Dimensions</b>	1350x910x320 mm (53.1 x 35.8 x 12.6 in)	<b>Suspension</b>	Passive, Rocker
<b>Mass</b>	370 kg (815 lb)	<b>Ground Clearance</b>	30 mm (1 3/16 in)
<b>Turning Radius</b>	Turn in place	<b>Floor Obstacle</b>	4 mm (5/32 in)

### ENERGY SYSTEM

<b>Battery Capacity</b>	21Ah	<b>Battery Voltage</b>	48V
<b>Max. Charge Rate</b>	42A	<b>Battery Life</b>	6000 full charge cycles
<b>Charge Time (10% to 90%)</b>	30 min	<b>Battery Charging Options</b>	Autonomous Opportunity Charging (Default) Manual Charging

### SAFETY SYSTEM

<b>Adaptive Fieldsets</b>	Intelligent PL-d rated switching fieldsets (patent-pending)	<b>Standards Compliance</b>	Designed in accordance with present standards. Passed in accordance with CE.
		<b>Manual Control</b>	Pendant-based manual control. Guided autonomous control available via OTTO software interface.

### ATTACHMENT INTERFACE

<b>Power Interface</b>	24 VDC, 1A, regulated, unswitched 48 VDC nominal, 3x16A, unregulated
<b>Signal Interface</b>	Ethernet, USB CAN Bus, GPIO Safety I/O
<b>Safety Interface</b>	Dual-channel E-Stop breakout, 2 safety-rated GPIO

### CONTROL SYSTEM

<b>Sensors</b>	2x Forward facing 3D Perception Cameras 2x LiDAR 6-axis IMU
<b>Computer</b>	Fanless Embedded Computer
<b>Communication</b>	802.11 a/b/g/n/ac, 2.4 Ghz & 5 Ghz 2x Long-range Omnidirectional Antennae

### ACCESSORIES (Sold Separately)

<b>Charging</b>	Autonomous Supercharger (42A) Manual Trickle Charger
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### ENVIRONMENTAL

<b>IP Classification</b>	Designed to IP54
<b>Temperature</b>	5 to 40° C
<b>Humidity</b>	10-95% non-condensing

For more information visit [www.ottomotors.com](http://www.ottomotors.com) or call us toll-free at **1-844-733-6886**