



**1.4T**  
Rated Load Capacity



**1.6m/s**  
Max. Safety Driving Speed



**2924mm**  
Fork Lifting Height



**2700mm**  
Min. Stacking Aisle Width

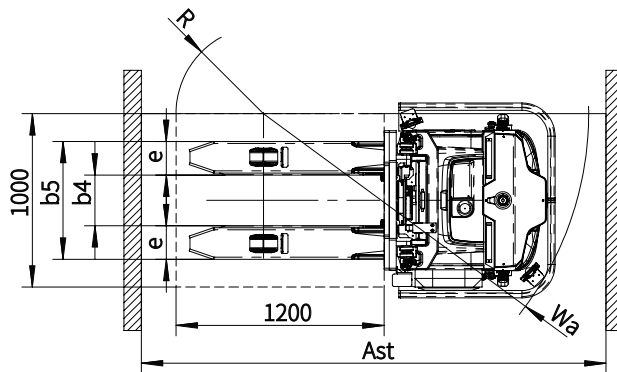
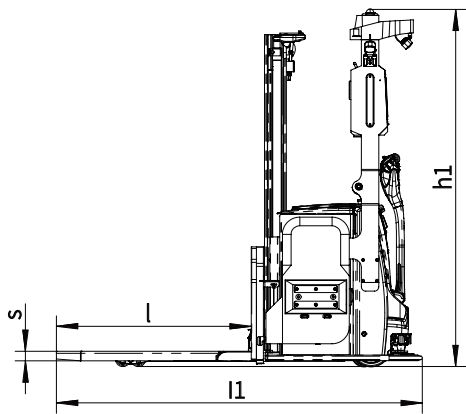
# VNL14(VL)-01

## PALLET STACKER AGV

Based on 3D SLAM navigation module, the pallet stacker AGV has high navigation accuracy without the need of reflectors; The 3D perception module is capable of detecting various of carriers, high loading and unloading accuracy, and providing 360-degree protection with high level safety and efficiency.



# VNL14(VL)-01



## TECHNICAL SPECIFICATIONS

Body Weight	1350kg (2976.24lb)
Vehicle Dimensions(l1/b1/h1)	2100x1125x2060mm (82.68x44.29x81.10in)
Fork Dimensions(l/e/s)	1220x180x55mm (48.03x7.09x2.17in)
Optional Fork Dimensions Series	1220/1270/1320mm (48.03x50x51.97in)
Fork Outer Width	560/680mm (22.05/26.77in)
Fork Inner Width	200/320mm (7.87/12.60in)
Positioning Method	3D SLAM navigation
Perception Method	3D Laser scanner
Goods Pick-up Self-adaptability	±100mm/±10° (±3.94in/±10°)

Fork Lifting Height	2924mm (115.12in)
Rated Load Capacity	1400kg (3086.47lb)
Load Center Distance	600mm (23.62in)
Min. Turning Radius	1876mm (73.86in)
Stacking Accuracy	±10mm/±0.5° (±0.39in/±1°)
Operation Mode	Automatic / Manual Pedestrian
Battery Type	Lithium iron phosphate
Voltage/Battery Capacity	24V/270Ah
Charging Mode	Manual/ Automatic Charging

## MOTION PERFORMANCE

Straight Forward Speed (Full-Load/Empty-Load)	1.6m/s, 1.6m/s (3.58mph, 3.58mph)
Straight Backward Speed (Full-Load/Empty-Load)	0.6m/s, 0.6m/s (1.34mph, 1.34mph)
Forward Turning Speed (Full-Load/Empty-Load)	0.3m/s, 0.6m/s (0.67mph, 1.34mph)

Backward Turning Speed (Full-Load/Empty-Load)	0.3m/s, 0.6m/s (0.67mph, 1.34mph)
Lifting Up Speed (Full-Load/Empty-Load)	160mm/s, 300mm/s (0.36mph, 0.67mph)
Lifting Down Speed (Full-Load/Empty-Load)	350mm/s, 400mm/s (0.78mph, 0.89mph)

## ENVIRONMENTAL REQUIREMENT

Min. Stacking Aisle Width (Pallet Size L*W:1200*1000mm, Across Forks on width)	2700mm (106.30in)
Min. Turning Aisle Width (Pallet Size L*W:1200*1000mm, Across Forks on width)	1800mm (70.87in)
Working Temperature	-5°C~40°C
Working Humidity	20%~95%

Ground Flatness	±5mm/m <sup>2</sup> (±0.20in/m <sup>2</sup> )
Max. Climbing Capability (Full-Load/Empty-Load)	10%, 20% (6°, 10°)
Max. Groove Width	30mm (1.18in)
Max. Step Height	10mm (0.39in)

## SAFETY PROTECTION

Front	Laser Scanner Protection + Anti-Collision Bumper
Rear	Laser Scanner Protection + Non-Contact Sensor
Top	Photoelectric Sensor + Ultrasound Scanner

Side	Laser Scanner Protection + Anti-Collision Bumper
Other	Emergency Stop Button + Acousto-Optic Alarm

\* With triplex mast option (body weight varies slightly with different mast selections); Other available options: 5G communication, battery heating, safety anti-collision bumper, loads over height detection, UWB safety system, barcode scanner, dash camera, RFID reader, etc.  
Maximum load capacity varies with lifting height, please refer to load capacity curve.  
Due to iterative upgrades on products, some of the specifications being listed above and the appearance of the products may not be able to change in time. For details, please contact our salespersons.