



**1.6T**  
Rated Load Capacity



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



**2844mm**  
Fork Lifting Height



**2700mm**  
Min. Stacking Aisle Width

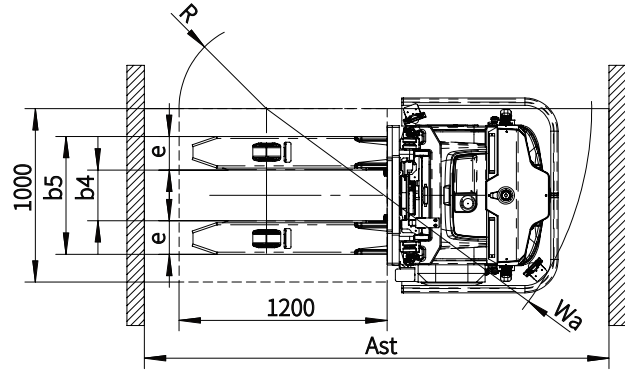
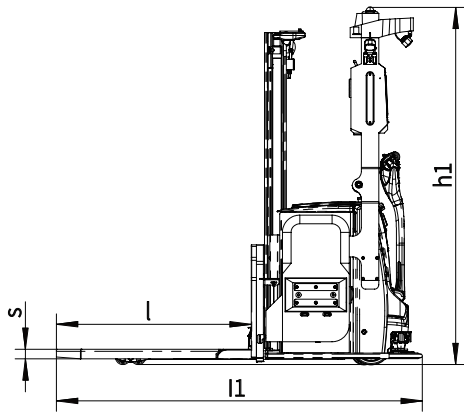
# VNL16(VL)-01

## 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.



# VNL16(VL)-01



## TECHNICAL SPECIFICATIONS

Body Weight	1200kg (2645.55lb)	Fork Lifting Height	2844mm (111.97in)
Vehicle Dimensions( $l_1/b_1/h_1$ )	2100x1125x2060mm (82.68x44.29x81.10in)	Rated Load Capacity	1600kg (3527.40lb)
Fork Dimensions( $l/e/s$ )	1120x180x55mm (44.09x7.09x2.17in)	Load Center Distance	600mm (23.62in)
Optional Fork Dimensions Series	1220/1270/1320mm (48.03x50x51.97in)	Min. Turning Radius	1876mm (73.86in)
Fork Outer Width	560/680mm (22.05/26.77in)	Stacking Accuracy	$\pm 10\text{mm}/\pm 0.5^\circ$ ( $\pm 0.39\text{in}/\pm 1^\circ$ )
Fork Inner Width	200/320mm (7.87/12.60in)	Operation Mode	Automatic / Manual Pedestrian
Positioning Method	3D SLAM navigation	Battery Type	Lithium iron phosphate
Perception Method	3D Laser scanner	Voltage/Battery Capacity	24V/270Ah
Goods Pick-up Self-adaptability	$\pm 100\text{mm}/\pm 10^\circ$ ( $\pm 3.94\text{in}/\pm 10^\circ$ )	Charging Mode	Manual/ Automatic Charging

## MOTION PERFORMANCE

Straight Forward Speed (Full-Load/Empty-Load)	1.6m/s, 1.6m/s (3.58mph, 3.58mph)	Backward Turning Speed (Full-Load/Empty-Load)	0.3m/s, 0.6m/s (0.67mph, 1.34mph)
Straight Backward Speed (Full-Load/Empty-Load)	0.6m/s, 0.6m/s (1.34mph, 1.34mph)	Lifting Up Speed (Full-Load/Empty-Load)	150mm/s, 300mm/s (0.36mph, 0.67mph)
Forward Turning Speed (Full-Load/Empty-Load)	0.3m/s, 0.6m/s (0.67mph, 1.34mph)	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)	Ground Flatness	$\pm 5\text{mm}/\text{m}^2$ ( $\pm 0.20\text{in}/\text{m}^2$ )
Min. Turning Aisle Width (Pallet Size L*W:1200*1000mm, Across Forks on width)	1800mm (70.87in)	Max. Climbing Capability (Full-Load/Empty-Load)	10%, 20% ( $6^\circ, 10^\circ$ )
Working Temperature	$-5^\circ\text{C}$ ~ $40^\circ\text{C}$	Max. Groove Width	30mm (1.18in)
Working Humidity	20%~95%	Max. Step Height	10mm (0.39in)

## SAFETY PROTECTION

Front	Laser Scanner Protection + Anti-Collision Bumper	Side	Laser Scanner Protection + Anti-Collision Bumper
Rear	Laser Scanner Protection + Non-Contact Sensor	Other	Emergency Stop Button + Acousto-Optic Alarm
Top	Photoelectric Sensor + Ultrasound Scanner		

\* 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.