



3086.47lb
Rated Load
Capacity



4.47mph
Max. Safety
Driving Speed



226.57in
Fork Lifting Height



127.95in
Min. Stacking
Aisle Width

VNR14

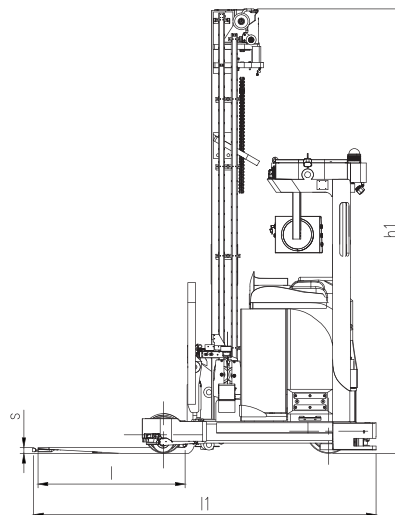
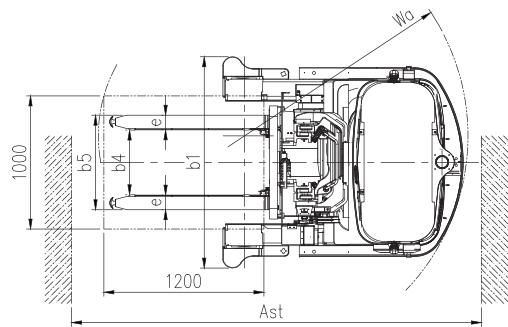
REACH TRUCK AGV



The combination of navigation module (Vision-based or 3D SLAM) and 3D Laser perception module provides higher accuracy on different perspectives such as vehicle positioning, goods loading, goods unloading, and etc. The VNR series has 360-degree laser safety protection with mechanical protection. In addition, it is suitable for selective pallet rack, drive-in rack, and other high position storage scenarios.



VNR14



TECHNICAL SPECIFICATIONS

Body Weight	3140kg (2204.62lb)	Fork Lifting Height	5755mm (226.57in)	
Vehicle Dimensions (l/b ₁ /h ₁)	Reach Retracts	2587x1635x2476mm (84.13x39.69x97.48in)	Rated Load Capacity	1400kg (3086.47lb)
	Reach Extends	3011x1635x2476mm (118.54x64.37x97.48in)	Load Center Distance	600mm (23.62in)
Fork Dimensions (l/e/s)	1115x100x45mm (40.90x3.94x1.77in)	Min. Turning Radius	1695mm (66.73in)	
Optional Fork Dimensions Series	1265/1365/1465/1565mm (49.80/53.74/57.68/61.61in)	Supporting Legs Height	310mm (13.38in)	
Fork Outer Width (b ₅)	710mm (27.95in)	Side Shift Range	±80mm (±3.15in)	
Fork Inner Width (b ₄)	486mm (19.13in)	Stacking Accuracy	±10mm/±0.5° (±0.39in/±0.5°)	
Mast Forward Distance	424mm (16.69in)	Operation Mode	Automatic / Manual Seated	
Positioning Method	Vision-based Navigation	Battery Type	Lithium iron phosphate	
Perception Method	3D Laser scanner	Voltage/Battery Capacity	48V/400Ah	
Goods Pick-up Self-adaptability	±100mm/±10° (±3.94in/±10°)	Charging Mode	Manual/ Automatic Charging	

MOTION PERFORMANCE

Straight Forward Speed (Full-Load/Empty-Load)	2.0m/s, 2.0m/s (4.47mph, 4.47mph)	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)	400mm/s, 660mm/s (0.89mph, 1.48mph)
Forward Turning Speed (Full-Load/Empty-Load)	0.3m/s, 0.6m/s (0.67mph, 1.34mph)	Lifting Down Speed (Full-Load/Empty-Load)	550mm/s, 450mm/s (1.23mph, 1.01mph)

ENVIRONMENTAL REQUIREMENT

Min. Stacking Aisle Width (Pallet Size L*W:1200*1000mm, Across Forks On Width)	3250mm (127.95in)	Ground Flatness	±3mm/m ² (±0.12in/m ²)
Min. Turning Aisle Width (Pallet Size L*W:1200*1000mm, Across Forks On Width)	2500mm (98.43in)	Max. Climbing Capability (Full-Load/Empty-Load)	10%, 10% (6°, 6°)
Working Temperature	-5°C~40°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 + Contact Sensor	Other	Emergency Stop Button + Acousto-Optic Alarm
Top	Photoelectric Sensor + Ultrasound Scanner		

* Customizable 3D SLAM navigation; come with triplex mast option with lifting height 5755mm, 7255mm, 8555mm (weight of car body varies with the selection of masts with different lifting heights); other available options: 5G communication, battery heating, battery trolley for battery swap, safety anti-collision bumper, loads over-height detection, UWB safety system, barcode scanner, dash camera and RFID reader, and 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.