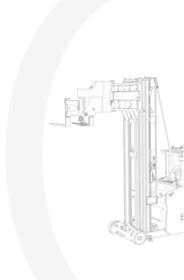
# **Multiway Robotics**









Introduction

The VNA truck MW-K16 applied to the high-bay storage of a narrow passageway, with payload of 1500 kg and max lifting height of 11000 mm. The cargo stacking and loading/ unloading on both sides of the passageway can be realized through 180° rotation of the fork and left/ right side movement without turning the body.

### **Features**



#### **Environment Adaptive**

With laser navigation and positioning, there's no need to renovate the on-site environment.



#### **Dense Storage**

The narrowest roadway is only 1.75 meters



#### **Highly Intelligent**

A whole range of functions such as mapping, path planning, auto-charging, and intelligent operations for various scenarios.

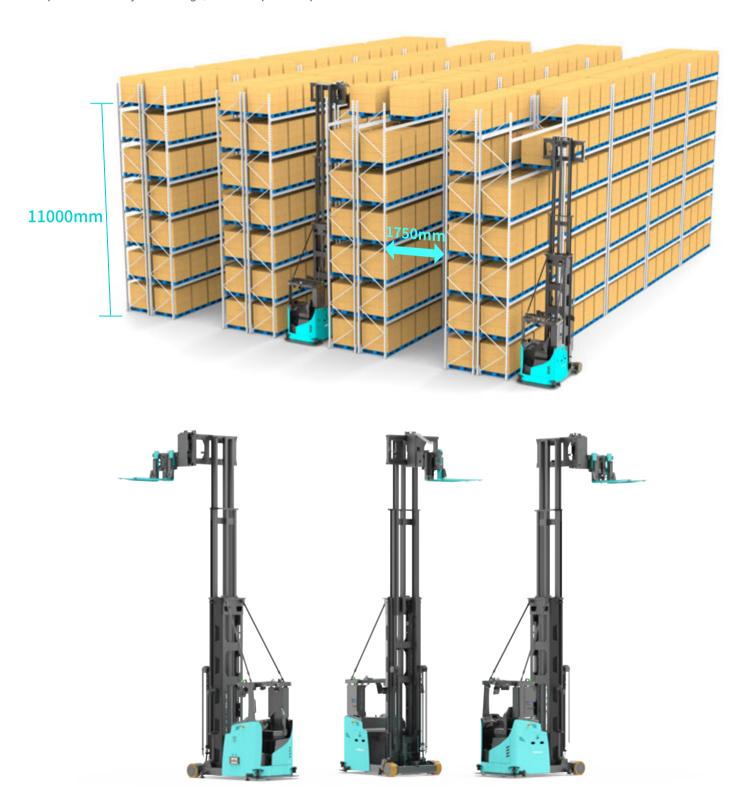


#### **Intelligent Safety**

Comprehensive fault self-detection 360° obstacle avoidance and sound & light warning.

# Narrow roadway high bay storage

The VNA truck narrow roadway high bay storage solution has high cargo access efficiency. The fork arm of the vehicle adopts a three-way fork design, which improves space utilization and reduce warehouse construction costs.



**Multiway Robotics** 

# K Series K16

## **Specififications**

Basic Parameter	Model	K16				
	Navigation	LiDAR Navigation / Sky Navigation / Mixed Navigation				
	Communication	Wi-Fi / 5G / Optical Communication				
	Driving Features	Forward, Reverse, and Turn				
	Control Mode	Auto/Manual				
	Rated Load Q (kg)	1500				
	Load Center C (mm)	500				
	Weight (Including battery) (kg)	6280~7260				
	Turning Radius Wa (mm)	2250				
	Aisle Width (mm)	1750				
	Maximum Lifting Height (mm)	11000				
	Dimensions L×W×H (mm)	3455x1575x (2935~4265)				
	Fork Dimensions lxexs (mm)	1250x125x50				
	Fork Rack Width b2 (mm)	820				
	Fork Outer Space b3 (mm)	265~760				
	Minimum Height of Fork From the Ground h6 (mm)	60±5				
	Positioning precision/ Stop Angle (Center of bearing wheel) (mm/°)	±10/±1				
lovement	Obstacle Clearing Capability	≤10				
	Climbing Capacity	11000 3455x1575x (2935~4265) 1250x125x50 820 265~760 60±5 ±10/±1				
Obstacle Clearing Capability	Cross-Groove Capability (mm)	≤30				
	2.2/1					
	Max Lifting Speed (No Load/Full Load) (mm/s)	300/300				
	Max Descent Speed (No Load/Full Load) (mm/s)	340/340				
	Max Climb Capability (No Load/Full Load) (S2-5min) $\%$ (tan $\theta$ )	5/5				
Battery Specifications	Battery Voltage/Capacity (V/Ah)	48V/450AH				
	Charging Mode	Auto/Manual				
	Run time	6~8h				
	Battery Life	Complete charge-discharge 2500 times ≥70%				

Note: In the real-time update of product parameters, the above parameters are for reference only and shall prevail.

#### **Attachment**

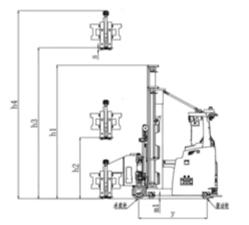


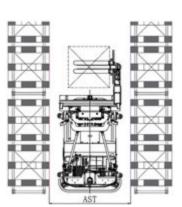
#### **Customize**

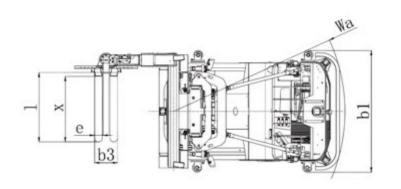


#### Carrier







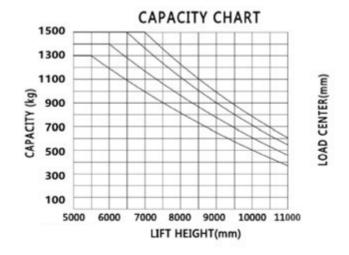


Aisle width& Turning radius							
Pallet (mm)	1000↑x1000	1000↑x1200	1200↑x1200				
AST (mm)	1750						
Spin diameter (mm)	4300						

## **Mast Specification**

Triplex Mast												
Lifting height	h3 (mm)	4500	5000	5500	6000	6500	7000	7500	8000	8500	9000	9500
Mast closure height	h1 (mm)	2765	2935	3100	3265	3435	3600	3765	3935	4100	4265	4435
Mast height when lifting	h4 (mm)	5650	6150	6650	7150	7650	8450	8650	9150	9650	10150	10650
Free lifting height	h2 (mm)	1670	1830	2000	2170	2330	2500	2670	2830	3000	3170	3330

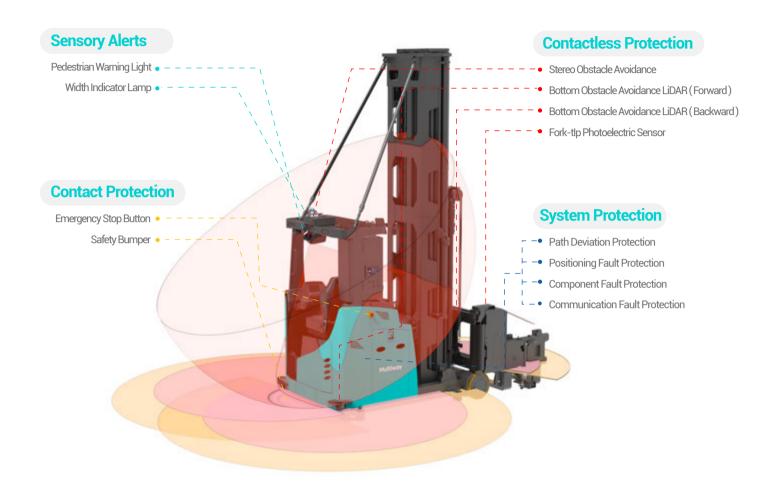
#### **Load curve**





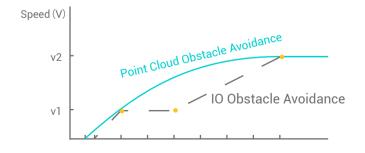
## **Comprehensive safety protection:**

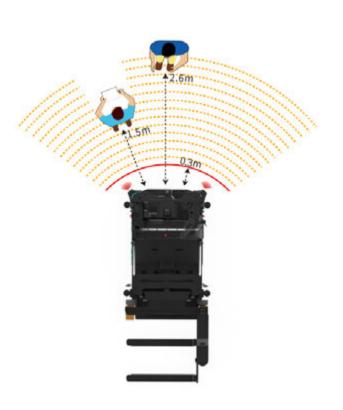
Sound perception + obstacle avoidance + touch reception, 360° omnidirectional three-layer protection



#### **Point Cloud Obstacle Avoidance:**

The forward simulation algorithm can measure the distance to obstacles, autonomously plan the moving speed, ensure the vehicle accelerates and decelerates smoothly without sudden changes in speed.





# **Multiway Robotics**

Multiway Robotics, a leading intelligent intralogistics solution provider, is dedicated to improve intralogistics efficiency, ensure work safety and reduce labor operational cost.

Global Presence: The headquarters is located in Shenzhen, China, with production facilities in Zhejiang. Multiway has also established subsidiaries in the United States, Germany, Japan, South Korea, and more, extending business, operations, and services to 30+ countries and regions worldwide.

Our Expertise: Focusing on advanced robotics and AI technology, Multiway Robotics is committed to delivering cutting-edge Smart Intralogistics Solution to our customers. Multiway offers a comprehensive, integrated innovation delivery platform and solutions, ranging from core sensors and algorithms to self-developed unmanned forklifts and upper-level control systems. Hardware products include a full range of unmanned forklifts and four-way shuttle, while software systems encompass Multiway Cloud, WMS, RCS, WCS, on-site management systems, and various visual solutions.

Software: WMS, RCS, WCS, Multiway Cloud, Horizons, Simulation

Hardware: AGV forklifts, AGV Tugger, AMR & Four-way Shuttle

After successfully delivering numerous benchmark projects in industries such as factories, warehousing, and logistics, Multiway has become a trusted and ongoing collaborative partner for many industry-leading customers.



## **Contact Us**

Offices:

USA · Atlanta | Japan · Tokyo | Korea · Seoul

Germany · Duisburg China · Shenzhen

Hotline: +86 133 9286 4873
Official website: www.mw-r.com
Email: sales@mw-robot.com

Subscribe to get the latest Multiway Robotics news

Multiway Robotics









