## **Multiway Robotics**

# S E Series

## Counterbalanced Forklift

SE15/SE20/SE30







## Introduction

Counterbalanced Forklift AGV SE series is applicable to automatic transfer and handling of goods on two-way or four-way entry pallets between different storage locations. With a load capacity of up to 3000 kg, a lifting height of up to 4500 mm, SE series features a fast driving speed, good climbing capability, and high load capacity. SE series is widely used in various scenarios including goods stacking, equipment docking, horizontal handling, high-level storage and auto truck loading/unloading.

### **Features**



#### **Environment Adaptive**

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



## Non-stop pallet pose identification

Visual perception non-stop pallet pose identification can realize fast and accurate pick-and-place of goods.



#### **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.

## **Scenarios**



#### **Docking with Production Line**

Efficient automatic transportation and turnover from the warehouse to the buffer area and production line zone.



#### **Automatic (un)loading**

Compatible multiple models (wing door, flat door). Compatible with multiple sizes of cargo (automatic allocation).



#### **Cage Stacking**

The motion trajectory is dynamically constructed to achieve accurate stacking of up to 6 layers of material cages. It is also equipped with safety technology detection to ensure operating safety.



#### **Intelligent handling**

Load range between 1.5T to 3T, and the lifting height can reach 4.5m, which supports flexible handling in multiple scenarios such as line side warehouses, temporary storage areas, and ground storage warehouses.

Multiway Robotics

## SE Series SE15/SE20/SE30 Counterbalanced Forklift,





## **Specifications**

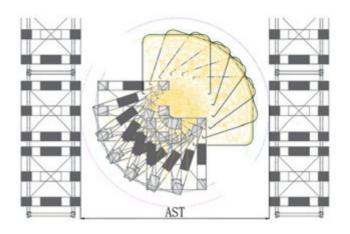
	Model	SE15	SE20	SE30			
Basic Parameter	Navigation	LiDAR Navigation / Sky Navigation / Mixed Navigation					
	Communication	Wi-Fi / 5G / Optical Communication					
	Driving Features	Forward, Reverse, and Turn					
	Control Mode	Auto/Manual					
	Rated Load Q (kg)	1500	2000	3000			
	Load Center C (mm)		500				
	Weight (Including battery) (kg)	2800	3300	4700			
	Turning Radius Wa (mm)	1365	1800	1955			
	Aisle Width (mm)	3300	3800	3800			
	Maximum Lifting Height (mm)	3000	4500	4500			
	Dimensions L×W×H (mm)	2500x1145x(1950~2300)	2950x1145x(1950~2820)	3121x1488x(1950~2820)			
	Fork Dimensions Ixexs (mm)	1070x122x40	1070x125x45	1220x150x50			
	Fork Rack Width b2 (mm)	750	964				
	Fork Outer Space b3 (mm)	320/470/620					
	Minimum Height of Fork From the Ground h6 (mm)	50±5	60±5				
	Positioning precision/ Stop Angle (Center of bearing wheel) (mm/	')	±10/±1°				
	Obstacle Clearing Capability	≤10					
	Climbing Capacity	≤3°(5%)					
Movement Specifications	Cross-Groove Capability (mm)	≤30					
Specifications	Max Driving Speed (No Load/Full Load) (m/s)	1.5/1.38					
	Max Lifting Speed (No Load/Full Load) (mm/s)	150/100					
	Max Descent Speed (No Load/Full Load) (mm/s)		100/150-250				
	Max Climb Capability (No Load/Full Load) (S2-5min) % (tanθ)		≤3°				
Battery Specifications	Battery Voltage/Capacity (V/Ah)	24V/200AH	48V/300AH				
	Charging Mode		Auto/Manual				
	Run time	6~8h					
	Battery Life	Complete	e charge-discharge 2500 tir	mes ≥70%			

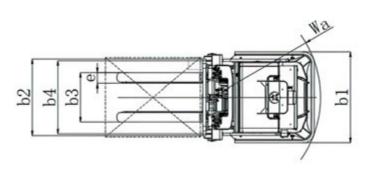
 $Note: In the \ real-time \ update \ of \ product \ parameters, the \ above \ parameters \ are \ for \ reference \ only \ and \ shall \ prevail.$ 







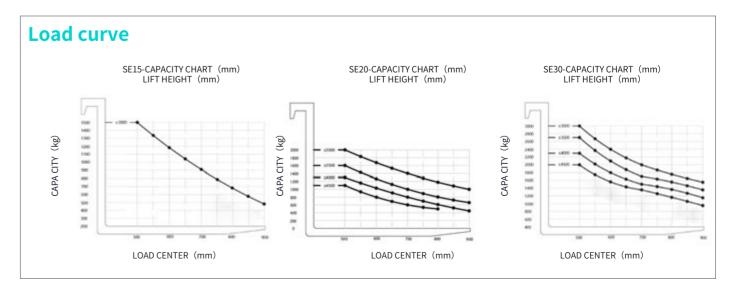




Aisle Width							
Model		SE15	SE20	SE30			
1000↑x1000mm Pallet		3150	3650	3900			
1000↑x1200mm Pallet	AST (mm)	3300	3800	4000			
1200↑x1200mm Pallet		3350	3850	4100			

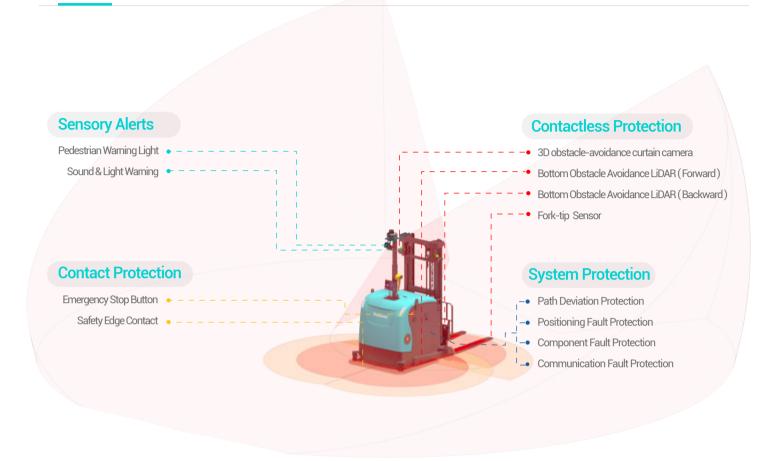
## **Mast Specification**

Duplex Mast											
Model		SE15/SE20				SE30					
Lifting height	h3 (mm)	2500	3000	3500	4000	4500	2500	3000	3500	4000	4500
Mast closure height	h1 (mm)	1770	2020	2270	2520	2770	1855	2105	2355	2605	2855
Mast height when lifting	h4 (mm)	3435	3935	4435	4935	5435	3550	4050	4550	5050	5550
Free lifting height	h2 (mm)					125					



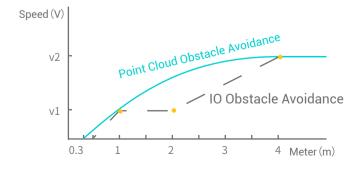
## **Comprehensive safety protection:**

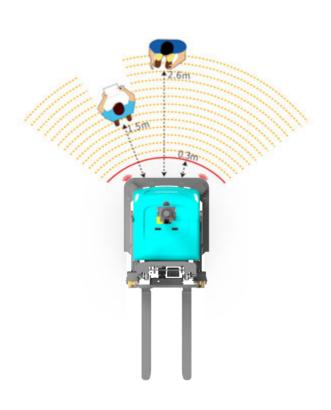
Sound perception + obstacle avoidance + touch reception, 360° omnidirectional three-layer protection



#### **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.



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