SE Series

Counterbalanced Forklift

SE15/SE20/SE30

Laser Navigation LiDAR

Pedestrian Warning Light

3D obstacle-avoidance curtain camera

Safety Indicator

HMI

Emergency Stop Button

Safety Obstacle Avoidance LiDAR

Safety Bumper
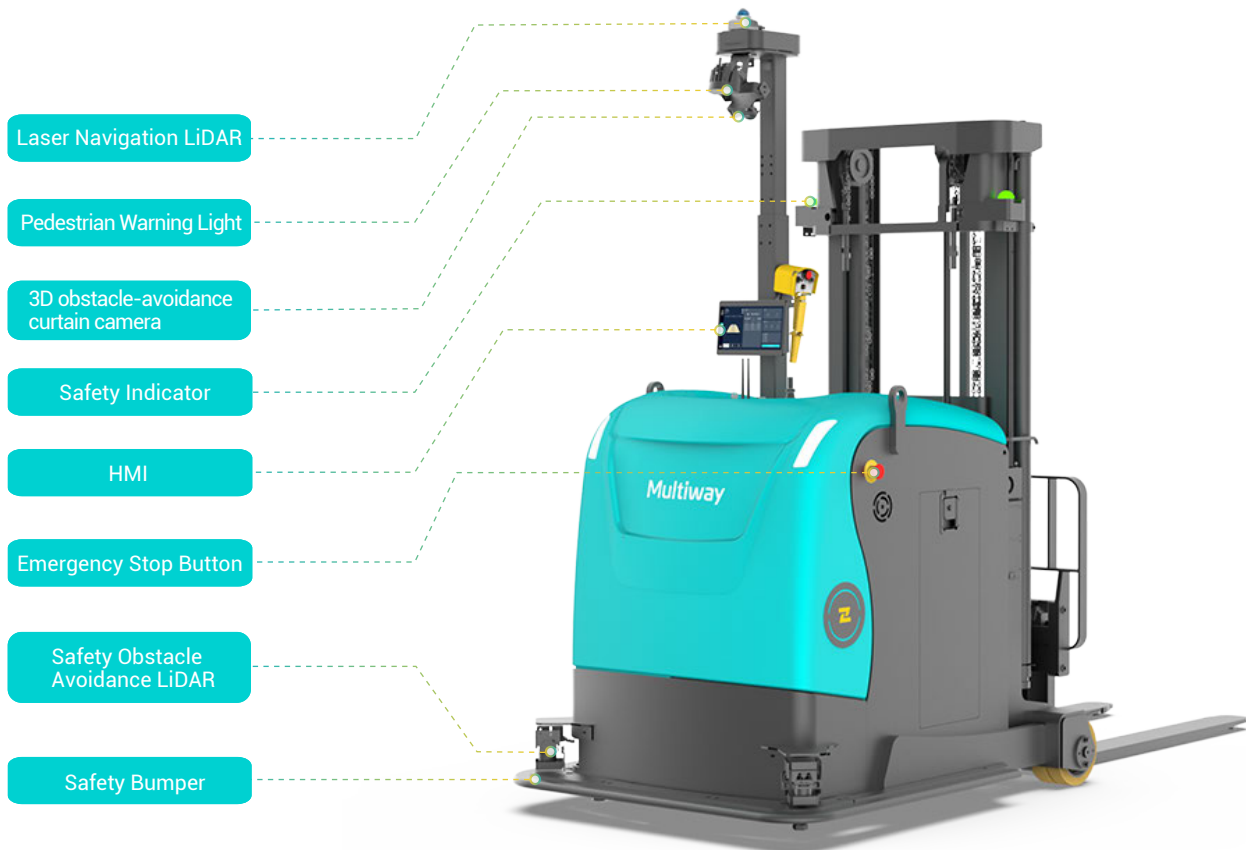
Introduction

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.

Highly Intelligent

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

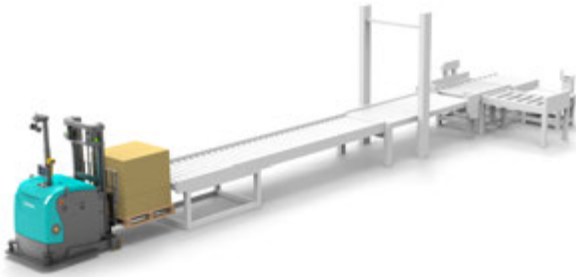### Non-stop pallet pose identification

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

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.
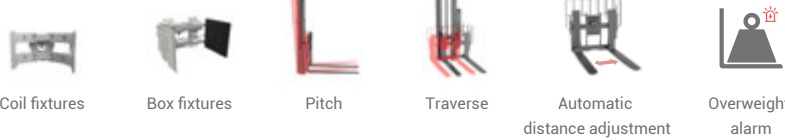
SE Series
SE15/SE20/SE30
Counterbalanced Forklift

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 lxexs (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
Movement Specifications	Positioning precision/ Stop Angle (Center of bearing wheel) (mm/ °)	±10/±1°		
	Obstacle Clearing Capability	≤10		
	Climbing Capacity	≤3°(5%)		
	Cross-Groove Capability (mm)	≤30		
	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 charge-discharge 2500 times ≥70%		

Note: In the real-time update of product parameters, the above parameters are for reference only and shall prevail.
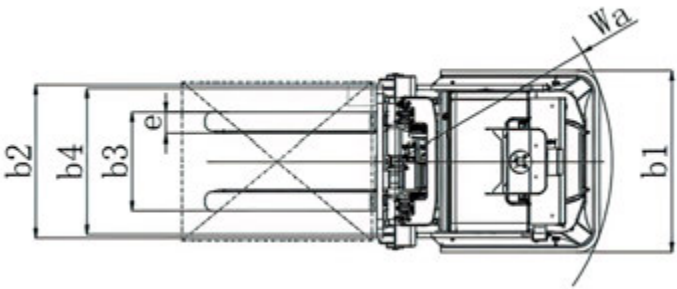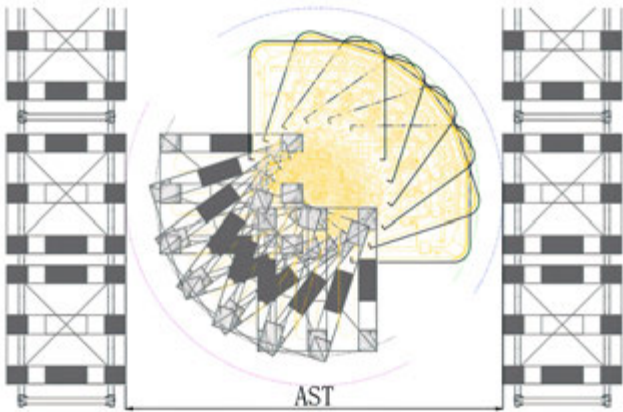
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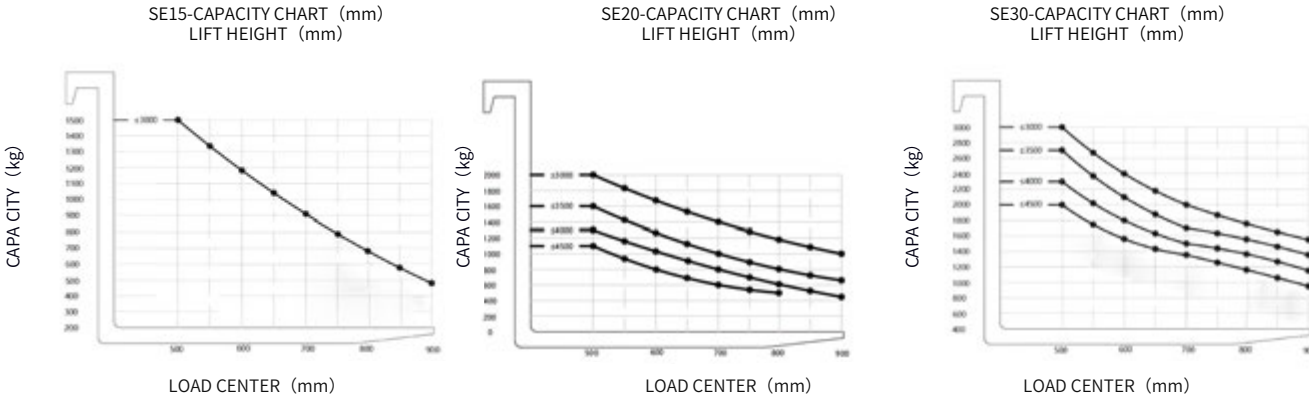Coil fixtures | Box fixtures | Pitch | Traverse | Automatic distance adjustment | Overweight alarm

Customize

Explosion-proof | Cold chain

Carrier

2-way pallet | 4-way pallet | Cage | Cart | Barrels | Coil

AST

Aisle Width

Model		SE15	SE20	SE30
1000↑x1000mm Pallet	AST（mm）	3150	3650	3900
1000↑x1200mm Pallet		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									

Load curve

SE15-CAPACITY CHART（mm）
LIFT HEIGHT（mm）

SE20-CAPACITY CHART（mm）
LIFT HEIGHT（mm）

SE30-CAPACITY CHART（mm）
LIFT HEIGHT（mm）

CAPA CITY（kg）

LOAD CENTER（mm）

Comprehensive safety protection:

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

Sensory Alerts

Pedestrian Warning Light

Sound & Light Warning

Contact Protection

Emergency Stop Button

Safety Edge Contact

Contactless Protection

3D obstacle-avoidance curtain camera

Bottom Obstacle Avoidance LiDAR (Forward)

Bottom Obstacle Avoidance LiDAR (Backward)

Fork-tip Sensor

System Protection

Path Deviation Protection

Positioning Fault Protection

Component Fault Protection

Communication Fault 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.

2.6m

1.5m

0.3m

Speed (V)

v2

v1

Point Cloud Obstacle Avoidance

IO Obstacle Avoidance

0.3   1   2   3   4   Meter (m)
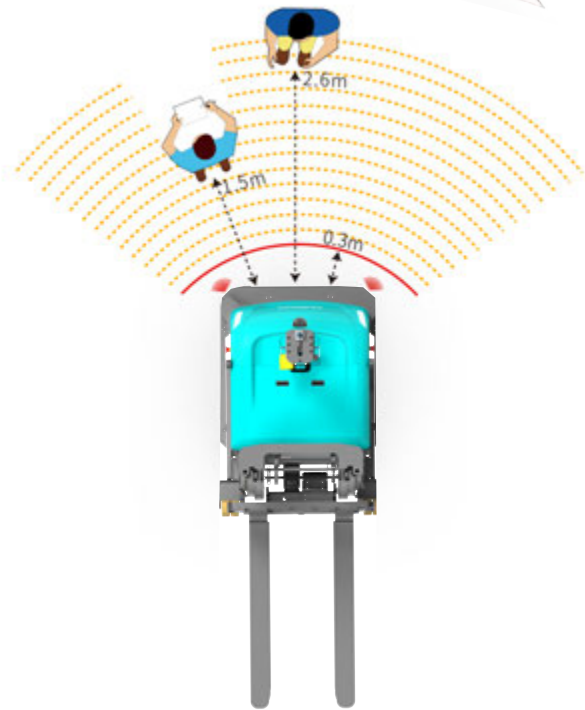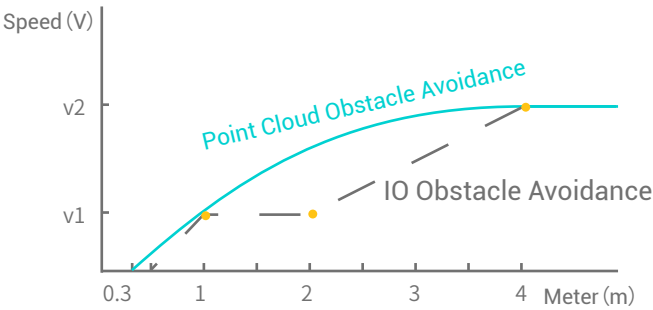
Multiway Robotics

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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