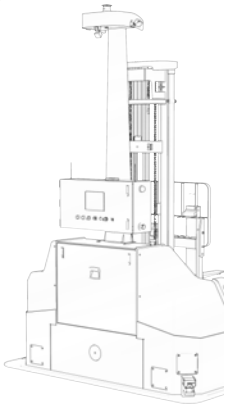
Multiway Robotics

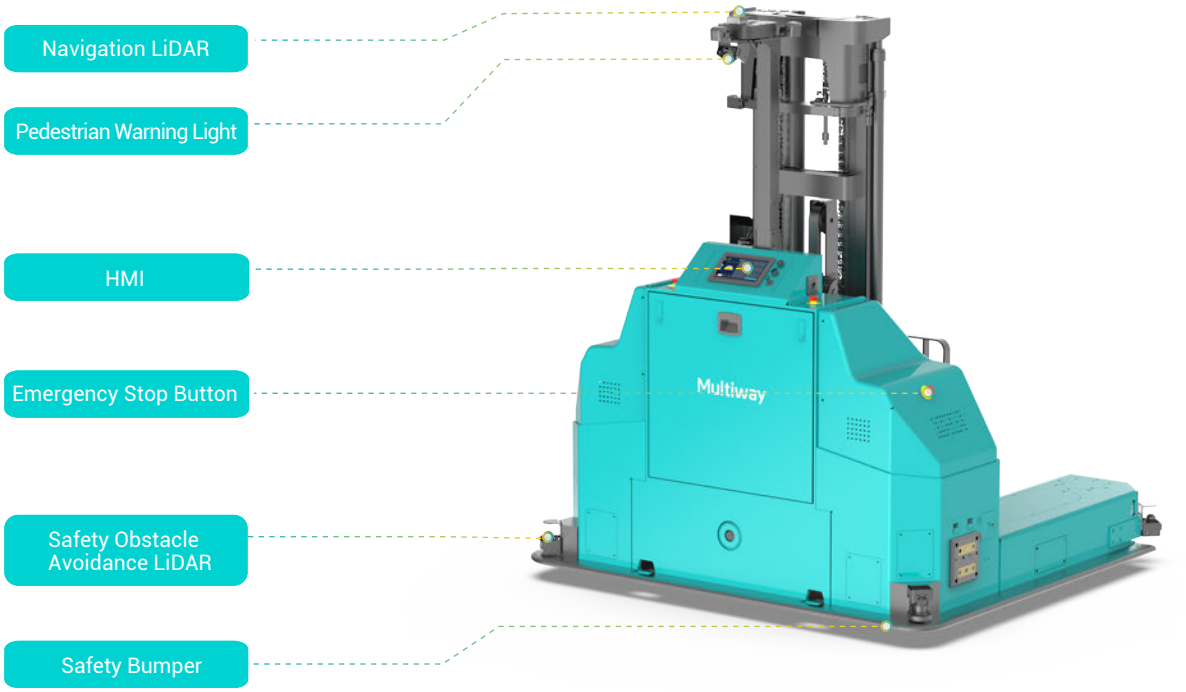
O Series

Sideloader Unmanned Forklift Truck



O15/O20/O30

www.mw-r.com



Introduction

Sideloader Forklift MW-O Series is widely used in ground handling and high-position loading/unloading in multiple scenarios, like high-density and VNA (Very Narrow Aisle)storage. Its biggest feature is that the fork extends from the side, and allows barrier-free operation in very narrow aisle, maximizing aisle space savings. With a load capacity of up to 3000 kg, a lifting height of up to 8000 mm, high precision of ±10mm, MW-O Series can ensure the safety and stability of high-position stacking and loading/unloading, greatly improves the storage capacity rate.

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.

Dense Storage

The narrowest roadway is only 2.3 meters

Intelligent Safety

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

Scenarios

Long materials handling

Suitable for handling and stacking long volume materials such as metal, steel, pipe, wood, etc. Effectively avoid the problem of space occupation by using ordinary forklifts.

Automatic (un)loading

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

Narrow roadway handling

MW-O Series is widely used in ground handling and high-position loading/unloading in multiple scenarios, such as high-density and VNA (Very Narrow Aisle) storage.

Large tonnage material handling

Its biggest feature is that the fork extends from the side, and allows barrier-free operation in very narrow aisle, maximizing aisle space savings; With a load capacity of up to 3000 kg, a lifting height of up to 8000 mm, greatly improves the storage capacity rate.

O Series

O15/O20/O30
Sideloader Unmanned Forklift Truck

Specifications

	Model	O15	O20	O30
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）	2200~2400	2960~3160	4770~5120
	Turning Radius Wa（mm）	1087	1530	1650
	Aisle Width （mm）	2300	2600	2650
	Maximum Lifting Height (mm)	4500	6500	8000
	Dimensions L×W×H (mm)	1993x1628x（2350~2980）	2287x2180x（2350~3444）	2322x2406x（2350~3562）
	Fork Dimensions lxexs（mm）	1220x122x40	1220x100x45	1220x150x50
	Fork Outer Space b3（mm）	620	600	600
	Minimum Height of Fork From the Ground h6 (mm)	50±5	55±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）	1.38/1.5		
	Max Lifting Speed (No Load/Full Load)（mm/s）	140/100	100/65	220/200
	Max Descent Speed (No Load/Full Load)（mm/s）	95/100		200/260
	Mast Forward speed (No Load/Full Load)（mm/s）	100/100	120/120	
	Max Climb Capability (No Load/Full Load)（S2-5min）%（tanθ）	≤5°		
Battery Specifications	Battery Voltage/Capacity （V/Ah）	24V/300AH	24V200AH	48V/300AH
	Charging Mode	Auto/Manual		
	Run time	6~8h		
	Battery Life	Complete charge-discharge 2500 times ≥80%		

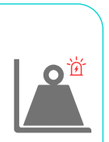
Note: In the real-time update of product parameters, the above parameters are for reference only and shall prevail.

Attachment

Automatic distance adjustment

Pitch

Traverse



Overweight alarm

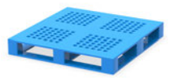
Customize

Explosion-proof

Cold chain

Carrier

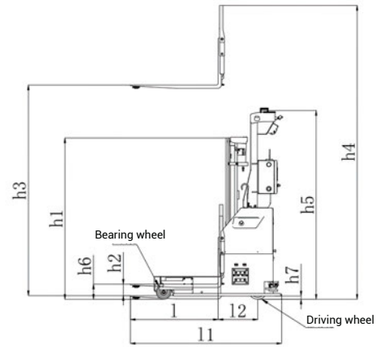
2-way pallet

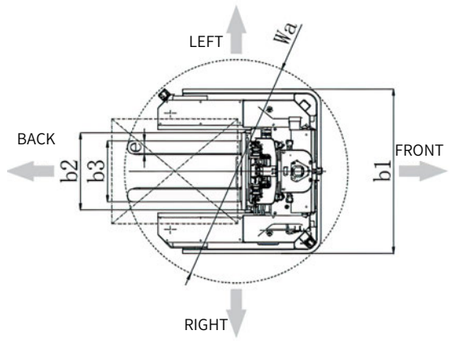


4-way pallet

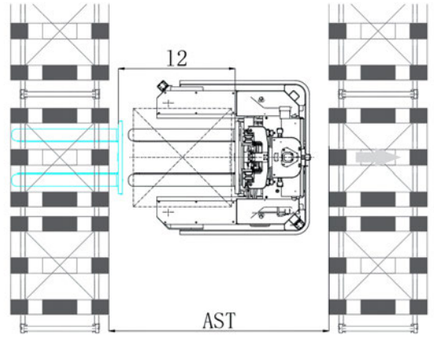
Cage

Cart





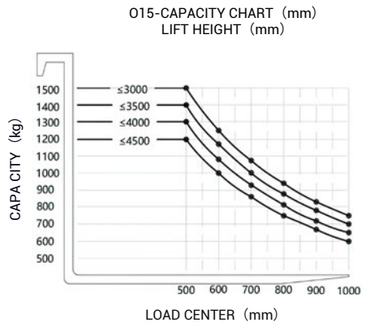
Mast Specification

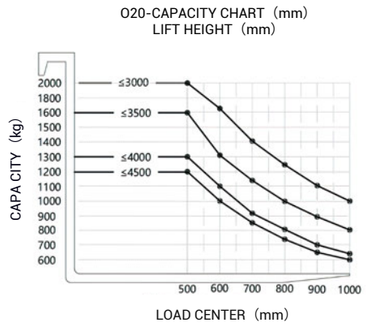


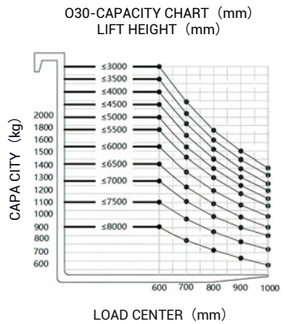
Aisle Width				
Model		O15	O20	O30
1000↑x1000mm Pallet	AST（mm）	2300	2740	2830
1000↑x1200mm Pallet				
1200↑x1200mm Pallet				

Duplex Mast													
Model		O15/O20							O30					
Lifting height	h3（mm）	2500	3000	3300	3500	3700	4000	4500	3000	3300	3500	3700	4000	4500
Mast closure height	h1（mm）	1980	2230	2380	2480	2580	2730	2980	2750	2900	3000	3100	3250	3500
Mast height when lifting	h4（mm）	3427	3927	4227	4427	4627	4927	5427	4200	4050	4550	4900	5200	5700
Free lifting height	h2（mm）	0												

Load curve

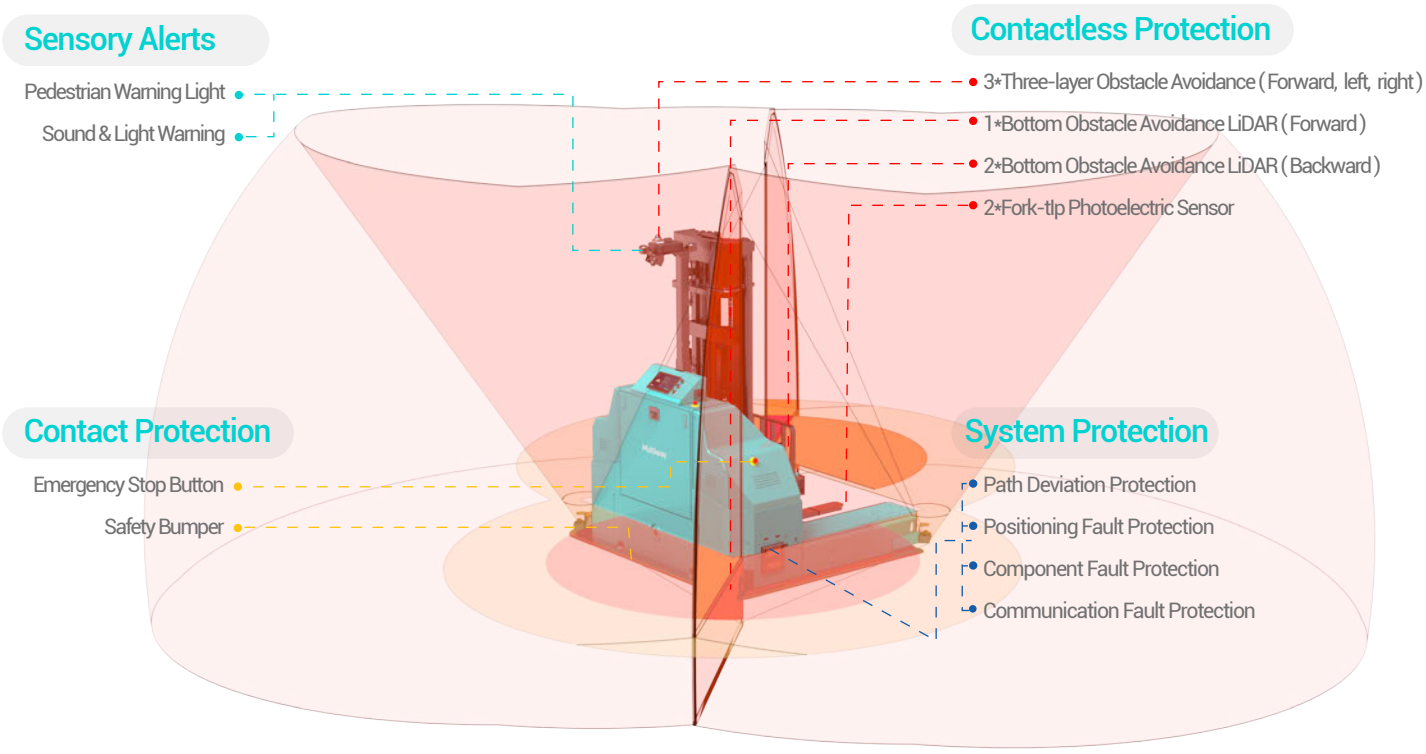






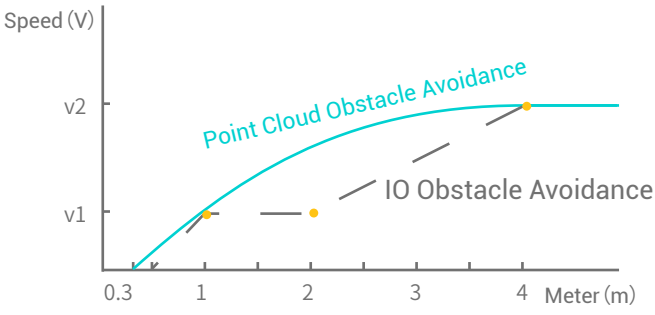
Comprehensive safety protection:

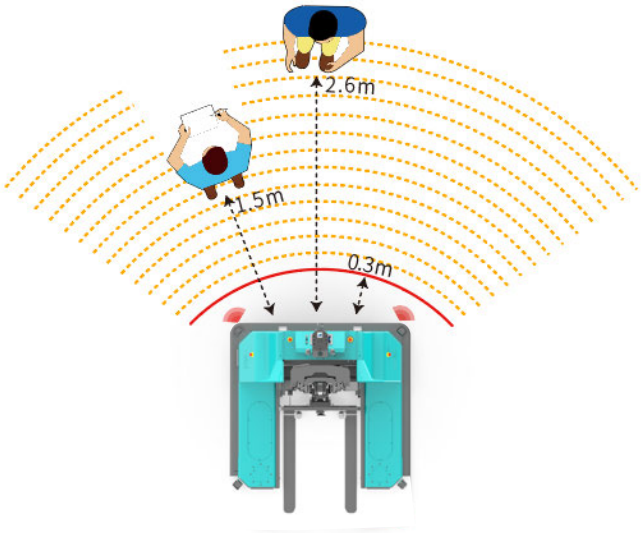
Sound perception + obstacle avoidance + touch reception, 360° omnidirectional three-layer protection



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 40+ 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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