Material Handling to Material Moving

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EP'S Smart Intralogistics Solution Automated X-Movers



X-Mover
Autonomous Reach Truck

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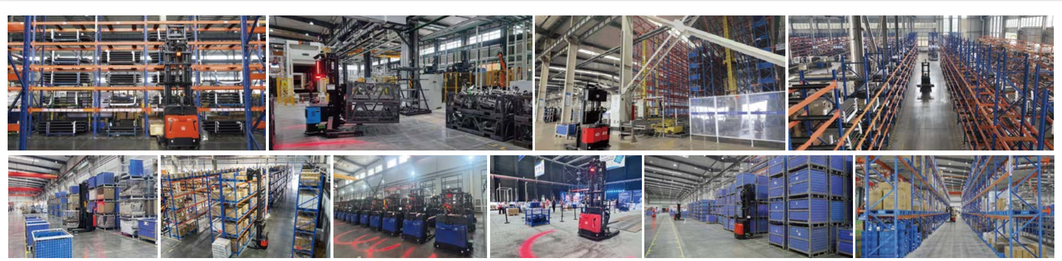
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01 Introduction

Combining high-precision stacking with autonomous transfer, autonomous reach truck creates optimized distributed warehousing solutions across diverse environments.



02 Characteristics

High-efficiency Cluster
- Autonomous decision-making of robots and university collaboration
- Combined with powerful algorithms and hardware support,achieve large-scale scheduling and transportation

High-Precision Positioning & Navigation
- Adopts laser SLAM navigation technology

Multiple Safety Protections
- Voice and light
- emergency stop buttons

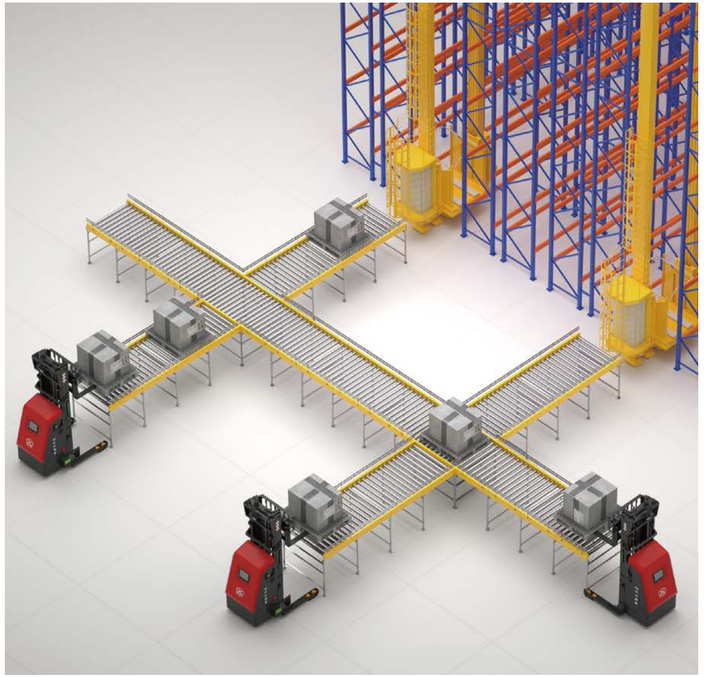
03 Application Scenarios



Normal-aisle racking



No-aisle stacking



Connect with automated equipment

04 Parameters

				XQE122	XQE122	XQE151E	XQC161E	XQC201E	XQS151E
									
Basic Parameters	1.1	Manufacturer		EP	EP	EP	EP	EP	EP
	1.3	Drive		Electric	Electric	Electric	Electric	Electric	electric
	1.4	Operator type		Pedestrian	Pedestrian	Pedestrian	Ride-on	Ride-on	stand-up
	1.5	Load capacity		1200	1200	1500	1600	2000	1500
	1.6	Service weight	kg	2565	2880	2820	3878	3420	2675
	1.7	Navigation	kg	3D Slam/QR Code	3D Slam/QR Code	3D Slam/QR Code	3D Slam	3D Slam	Slam
	1.8	Communication		Wi-Fi/5G	Wi-Fi	Wi-Fi/5G	Wi-Fi/5G	Wi-Fi/5G	WIFI
	1.9	Positioning accuracy		±10	±10	±10	±30	±10	±30
Battery Paramater	2.1	Battery voltage/nominal capacity	mm	48/150	48/150	48/150	48/280	48/280	48/280
	2.2	Battery type	V/Ah	Li-ion battery	Li-ion battery	Li-ion battery	Li-ion battery	Li-ion battery	Li-ion
	2.3	Battery weight		100	100	100	136	136	136
	2.4	Usage time	kg	5-6	5-6	5-6	8-10	6-8	6-8
Size	3.1	Dimensions (l1/b1/h1)	h	2260/1240/2965	2426/1240/2718	2352/1240/3053	2580/1496/3437	2688/1496/2472	2240/1178/2466
	3.2	Load centre distance	mm	600	600	600	600	600	600
	3.3	Load length	mm	377	318	334.5	308	342	386
	3.4	Wheelbases	mm	1265	1265	1365	1524	1524	1278
	3.5	Fork vertical length	mm	1165	1197	1255	1507	1489	1170
	3.6	Fork dimensions (s/e/l)	mm	40/100/1070	40/100/1200	40/100/1070	40/120/1070	40/120/1070	40/100/1070
	3.7	Outer width of forks	mm	350-780	350-780	350-780	200-770	200-900	350-538
	3.8	Height with forks lowered	mm	60	60	60	40	40	40
	3.9	Lifting height	mm	3200	4500	5500	8255	3600	3000
	3.10	Forward distance	mm	590	590	590	555	555	620
Other Parameters	4.1	Travel speed, laden/unladen	mm	1/1	1/1	1/1	1.5/2	1.5/2	1.5/2
	4.2	Max. gradeability, laden/unladen	m/s	3/5	3/5	3/5	6/10	6/10	6/10
	4.3	cross-ditch ability	%	≤20	≤20	≤20	≤20	≤20	≤20
	4.4	turning radius	mm	1544	1544	1628	1939	1939	1625
Channel Requirements	5.1	Straight forward/backward (with standard shelves) width	mm	1440	1440	1440	1696	1696	1800
	5.2	Right-angle turn (with standard shelves) width	mm	2130	2102	2097	2139	2604	2381
	5.3	Width of unilateral pick-up and unloading	mm	2880	2891	2942	3177	3186	3357
Safety	6.1	Emergency stop button	mm	two sides	two sides	two sides	two sides	two sides	front/both sides
	6.2	Voice and light		Voice + Light	Voice + Light	Voice + Light	Voice + Light	Voice + Light	Voice and light
	6.3	Front protection		Blindness treatment laser	slam+camera	Blindness treatment laser	3D slam	3D slam	LiDAR
	6.4	Rear protection		Fork laser + Mechanical collision protection	Fork-mounted camera + Photoelectric and mechanical anti-collision protection	Fork-mounted camera + Mechanical anti-collision protection	Fork tip laser + Mechanical collision protection	Fork tip laser mechanical collision protection	LiDAR+Physical block
	6.5	Side protection		Obstacle avoidance laser	Obstacle avoidance laser	Obstacle avoidance laser	Blindness treatment laser	Blindness treatment laser	LiDAR
	6.6	Physical bumper		Front + back	Front + two sides	Front + back	Front + back	Front + back	✓
	6.7	Pallet in-place detection switch		Rear fork root	Rear fork root	Rear fork root	Rear fork root	Rear fork root	Switch
Option List	7.1	Battery		●48V/150Ah	●48V/150Ah	●48V/150Ah	●48V/280Ah	●48V/280Ah	●48V/280Ah
	7.2	Charger		●48V/50A external charger	●48V/100A external charger	●48V/50A external charger	●48V/150A external charger	●48V/150A external charger	●48V/150A external charger
	7.3	Automatic charging station		○48V/100A automatic charging station	-	○48V/100A automatic charging station	○48V/100A automatic charging station	○48V/100A automatic charging station	-
	7.4	Warning light		●Turn signal ●Area warning light	●Turn signal ● Area warning light	● Turn signal ●Area warning light	●Turn signal ●Area warning light	●Turn signal ●Area warning light	● Turn signal● Area warning light
	7.5	Front protection		○Dual laser ●Blindness treatment laser	● Laser	○Dual laser ●Blindness treatment laser	●Blindness treatment laser	●Blindness treatment laser	●Blindness treatment laser
	7.6	Rear protection		●Fork tip anti-collision ●Fork base laser	● Fork tip anti-collision ●Fork base laser	●Fork tip anti-collision●Fork base laser	●Fork tip photoelectric ●Fork base laser	●Fork tip photoelectric ●Fork base laser	● Fork tip photoelectric
	7.7	Interaction method		●screen ○buttons	●screen ○ buttons	●screen ○buttons	●screen ○ buttons	●screen ○buttons	●screen ○ buttons

Notice: ●Standard ○Optional

The above content is a product introduction. As shown in the charts, it may contain non-standard configurations. If there are improvements in appearance, technical parameters, or configurations, we will try to update the information in a timely manner, However, in some cases, this information may still differ from the latest situation. Please contact your sales manager for confirmation before placing an order.

05 Use Cases

Wine Industry



Company Introduction

As one of the leading enterprises of Chinese wine industry,it's products has been sold nationwide and other countries.

Outcome

- Facilitate the management and storage of materials and finished products, improve space utilization, and reduce errors in the handling of goods and information processing.
- Optimize production processes and achieve 24-hour unattended automated warehouse management.

Solution

Robot: XQC161

- Narrow aisles (1800mm), deep storage and retrieval
- Three-layer material frame stacking, accuracy ±20mm, achieving dimensions 1533mm1216mm1580mm (2T) for precise three-layer stacking of stainless steel material frames
- TOF and QR code hybrid navigation: QR code navigation inside aisles to address poor laser navigation performance in densely stored material frame environments; TOF navigation outside aisles, requiring no reflective boards or additional identification markers, to achieve precise positioning

Demand

- Manual stacking requires 3–4 meters per aisle, resulting in low overall storage efficiency.
- When manually stacking wine barrels, errors can occur, causing tilting and posing a collapse safety risk.
- Manual work time is limited, making it difficult to ensure work efficiency, while management costs are relatively high.
- The transfer distance is long for multiple production lines and fermentation workshops, and the dedicated fermentation barrels are large, making handling operations laborious.
- It is difficult to manually record important data such as fermentation time, storage location, and batch numbers, leading to untimely collection of production process data.