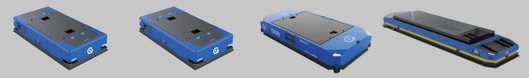
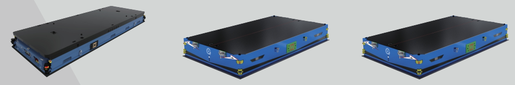
GUOZI



Product		3t heavy carrier (omni-dierctiona	4t heavy carrier (omni-dierctional)	6t heavy carrier (omni-dierctional)	10t heavy carrier (omni-dierctional)
Parameter	Work environment	indoor、temperature0°C-45°C、humidity20%-85%			
	Size L(mm)	⩾1800+50n (n=1、2、3、…20)	⩾1800+50n (n=1、2、3、…20)	⩾1800+50n (n=1、2、3、…20)	⩾1800+50n (n=1、2、3、…)
	Size W(mm)	900/1000/1200/1500	900/1000/1200/1500	900/1000/1200/1500	900/1000/1200/1500/2000
	Size H(mm)	400+50n (n=1、2、3、4)			
	Rated load(kg)	3000	4000	6000	10000
	Self weight(kg)	1200	1800	2200	3000
	Ground Clearance(mm)	50	50	50	50
	Lifting height(mm)	50-200	50-200	50-200	50-200
Navigation performanc	Navigation mode	QR code/laser/magnetic			
	Navigation accuracy(mm)	±10			
Motion performance	Walk mode	Forward/Backward/Turn/Rotate/Sideway			
	Drive mode	Double wheel			
	Rated Running Speed (no Load)(m/s)	0.2~0.8	0.2~0.6	0.2~0.6	0.2~0.6
	Rated Running Speed (Full Load)(m/s)	0.2~0.8	0.2~0.6	0.2~0.6	0.2~0.6
	Maximum Running Speed (no Load)(m/s)	0.8	0.8	0.8	0.8
	Maximum Running Speed (Full Load)(m/s)	0.8	0.8	0.8	0.8
	Stable Running Speed (no load)(m/s)	0.6	0.5	0.5	0.5
	Stable Running Speed (Full load)(m/s)	0.6	0.5	0.5	0.5
	Maximum acceleration (no load)(m/s2)	0.4m/s2	0.26m/s2	0.25m/s2	0.25m/s2
	Maximum acceleration (full load)(m/s2)	0.2m/s2	0.2m/s2	0.14m/s2	0.14m/s2
	Maximum Climbing Capacity, Full Load/No Load(%)	3%	3%	3%	3%
	Obstacle climbing ability (full load/no load)(mm)	5	5	5	5
	Gap climbing ability (full load/no load)(mm)	8	8	8	8
Safety protection	Obstacle detecting mode	Laser detection			
	Maximum detecting range(m)	4m	4m	4m	5m
	Collision Bar Detection	Front/Back/Left/Right			
	Stop button	Front/back			
	Overload detection	no	no	no	no
	Partial load detection	no	no	no	no
Battery performance	Battery type	Lithium Iron Phosphate			
	Rated voltage(V)	51.2V	51.2V	51.2V	51.2V
	Battery capacity(Ah)	60~120	60~120	60~200	60~250
	Rated working time(H)	8	8	8	8
	Charging mode	Online autonomous charging			



Product		15t heavy carr ier (omni-dierctional)	30t heavy carrier (omni-dierctional)	60t heavy carrier (omni-dierctional)
Parameter	Work environment	indoor、temperature0°C-45°C、humidity20%-85%		
	Size L(mm)	⩾1800+50n (n=1、2、3、…)	⩾3200+50n (n=1、2、3、…)	⩾3200+50n (n=1、2、3、…)
	Size W(mm)	900/1000/1200/1500/2000	900/1000/1200/1500/2000	900/1000/1200/1500/2000
	Size H(mm)	400+50n (n=1、2、3、4)		
	Rated load(kg)	15000	30000	60000
	Self weight(kg)	5000	10000	20000
	Ground Clearance(mm)	50	50	50
	Lifting height(mm)	50-200	100	100
Navigation performance	Navigation mode	QR code/laser/magnetic		
	Navigation accuracy(mm)	±10		
Motion performance	Walk mode	Forward/Backward/Turn/Rotate/Sideway		
	Drive mode	Double wheel		
	Rated Running Speed (no Load)(m/s)	0.2~0.4	0.2~0.4	0.2~0.4
	Rated Running Speed (Full Load)(m/s)	0.2~0.4	0.2~0.4	0.2~0.4
	Maximum Running Speed (no Load)(m/s)	0.6	0.6	0.6
	Maximum Running Speed (Full Load)(m/s)	0.6	0.6	0.6
	Stable Running Speed (no load)(m/s)	0.4	0.4	0.4
	Stable Running Speed (Full load)(m/s)	0.4	0.4	0.4
	Maximum acceleration (no load)(m/s2)	0.25m/s2	0.25m/s2	0.25m/s2
	Maximum acceleration (full load)(m/s2)	0.14m/s2	0.14m/s2	0.14m/s2
	Maximum Climbing Capacity, Full Load/No	3%	3%	3%
	Obstacle climbing ability (full load/no	5	5	5
	Gap climbing ability (full load/no load)(mm)	8	8	8
Safety protection	Obstacle detecting mode	Laser detection		
	Maximum detecting range(m)	6m	8m	9m
	Maximum detecting range(m)	Front/Back/Left/Right		
	Stop button	Front/back		
	Overload detection	no	yes	yes
	Partial load detection	no	yes	yes
Battery performance	Battery type	Lithium Iron Phosphate		
	Rated voltage(V)	51.2V	51.2V	51.2V
	Battery capacity(Ah)	60~250	60~250	60~250
	Rated working time(H)	8	8	8
	Charging mode	Online autonomous charging		

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GUOZI

Heavy carrier Autonomous Movement Without Burden

GUOZI

Product Overview

The automated handling of large materials (overweight, overlength) has always been a technical difficulty in the AGV industry. Heavy-duty AGVs are mainly used in warehousing, manufacturing, ports, airports, hazardous locations, special industries, etc. Guozi's heavy-duty product line has turned "lifting weights lightly" into the norm, and "safe production" has become a part of the work, and it will be more effective. Improve the level of logistics automation in the heavy-duty field, reduce the labor intensity of personnel, improve production efficiency, shorten the logistics cycle, accelerate capital turnover, and improve economic efficiency. Guozi AGV will work with you to realize: moving the world and seeing the future.

The global logistics scheduling flexible manufacturing system built by the company has advanced upper-layer architecture, rich middle-layer interfaces, and reliable bottom-layer applications. Not only can it match the production process of the assembly line, it can also be promoted in the construction machinery industry, and it is also flexibly applicable to similar manufacturing scenarios in the entire heavy industry industry, realizing unmanned warehouses and unmanned workshops.

Guozi Robot will continue to deepen cooperation with users in various industries and continue to provide matching flexible production solutions. In terms of reducing inventory, improving production efficiency and turnover, reducing labor costs, and improving occupational safety, it will work with users to build smart factories.

Automatic navigation
Using hybrid technologies like visual/laser/inertial navigation

Flexible control
Move toward all direction and move sideways

Non-standard equipment design
In addition to AGV tooling, EMS, positioner and hoist can be customized

Multiple security protection
Equipped with safety laser detection, safety edge detection, emergency stop button and other multi-level safety protection

Multi-vehicle system dispatch
Up to 1500 AGVs can be scheduled to run in the same application scenario at the same time

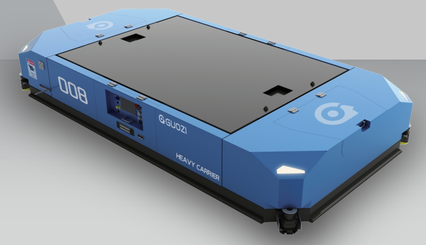
Two-car linkage handling
For the handling of long objects, China can use two robots for join thandling

Operation in severe weather
The robot can run the whole field in special environments such as outdoors, rain and snow

Simulate global simulation
Carry out global simulation of the vehicles running in the project to identify operational risks in advance

Application scenario

Construction machinery | Commercial vehicles | Aviation Manufacturing | Wind power generation | Ocean equipment | Coal equipment



CASE

AGV intelligent handling system for pump truck production line

Overview Each pump truck needs to install more than a thousand sets of parts of various sizes, and a lot of manpower is required to carry it.Low efficiency and high error rate; after intelligent application, the overall production capacity is increased by 180%.

Location Changsha, Hunan

Equipment There are 76 AGVs of various types including SLIM, light-duty 1T submersible jacking omnidirectional, heavy-duty 2T/3T/4T/6T submersible jacking omnidirectional, and shifting spoke road vehicles.

Highlights

- Using laser SLAM and visual hybrid navigation, there is no need to paste codes or magnetic strips on the ground environment, improving the cleanliness of the on-site environment
- Provide multiple types of AGVs, complete complex handling tasks through unified scheduling, division of labor and cooperation, and increase the logistics cycle by 45%
- When the material frame is placed tilted in some stations, the laser secondary recognition technology is used to improve the accuracy of handling

CASE

The main line of flexible manufacturing of excavator equipment

Overview Compared with the strong market demand, the semi-manual and semi-automatic assembly operation mode of a certain excavator manufacturer has severely restricted its production capacity; Guozi designed a set of flexible main line solutions for it, which can integrate third-party line-side control systems and AGVs. /RGV system, user upper cloud network system, etc., to create an integrated intelligent solution to help users achieve quality and efficiency.

Location Kunshan, Jiangsu

Equipment It consists of 25 sets of 20T heavy-duty AGVs and 12 sets of 30T heavy-duty RGVs, consisting of a loading assembly line (AGV, lifting mechanism), a disembarking assembly line (transporting AGV, RGV), a crawler assembly, and a car chain line.

Highlights

- The first flexible manufacturing mainline in China that adopts global logistics scheduling
- 45 days for delivery, 7 days to complete the commissioning and production conditions, 3 months to complete the production and acceptance
- After the production line was put into operation, the output in the first month increased by 150%, and the economic benefit of the company increased greatly

GUOZI

CASE

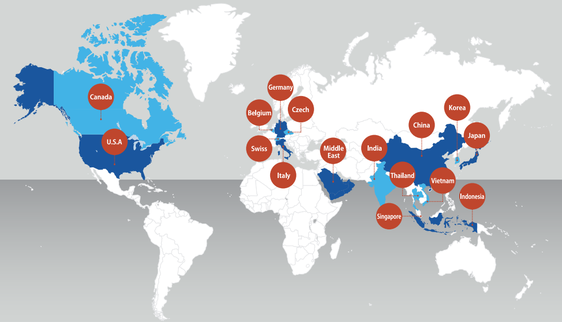
AGV intelligent handling system for heavy commercial vehicle production line

Overview In the vehicle and special vehicle production base of a large domestic automobile manufacturer, the traditional manual forklift was used to handle the production materials in the processing, welding, painting and final assembly of medium and heavy plates in the factory, which is low in efficiency and risky in safety. High, high error rate. National self the AGV directly connects to Party A`s WMS library management system and automatically matches the ordering tasks of the production line, which not only saves labor and increases productivity, but also avoids the frequent manual delivery of wrong materials.

Location Liuzhou, Guangxi

Equipment 3T, 10T (extra-long size) submerged into jack-up heavy-duty AG

Highlights

- The steel plate handled by AGV is heavy in weight, long in size, and requires high accuracy and angle in place
- According to customer signal requirements, AGV supports two-way in and out of the material frame
- There are many on-site docking points, and steel sheet materials are often distinguished by naked eyes; AGVs go to the docking points according to WMS instructions to complete precise docking, avoiding the frequent mistakes of manual feeding

GLOBAL CUSTOMERS