



ELECTRIC LOGISTICS VEHICLE



HANGZHOU HAOSHENG ELECTRIC VEHICLES CO., LTD
ADD | NO.158 GANXIAO ROAD, QINGSHAN TECH. CITY, HANGZHOU, CHINA.
ZIP | 311307
TEL | +86 13735523900 \ +86 15336592703
FAX | 0571-86194608
WEB | www.hzhsddc.com \ www.hsrobot.com



Company Profile



HANGZHOU HAOSHENG ELECTRIC VEHICLES CO., LTD. established in 2005. Which specialized in research, design, produce and market the kinds of electric vehicles for various of materials transportation, which suit for the workshop, factory, wharf, warehouse and so on. Our company has an annual production capacity of over 1,000 units. We have more than 200 staffs, including more than 50 persons in our R&D team. We hold over 50 self-developed patents in areas such as vehicle design and operational control software.

Our main products include AGV (Automated Guided Vehicle), RGV (Rail Guided Vehicle), WPX (Trackless flat cars), BD (Electric truck), KP (Rail flat car), PT (Trailer) and QSD (Tractor). They are all based on the battery power, no pollution, low noise, high efficiency, safe and easy operation. The load capacity's range from 1ton to 500tons.

We are not only sale the equipments, but also offer the solution for client's request as your actual situation such as the operating environment, endurance requirements, material specifications, and your budget constraints, etc., make sure the design and production of every vehicles are all for the customer's satisfied and convenience.



The functions of intelligent production line

INTELLIGENT PRODUCTION LINE

- The application areas of intelligent production lines include: automotive manufacturing, electronic manufacturing, mechanical manufacturing, and more.
- AGVs (Automated Guided Vehicles) and RGVs (Rail Guided Vehicles) are the core components of intelligent production lines. They are battery-powered, low noise and zero emissions, and possess autonomous navigation capabilities.
- The navigation system is a crucial component of intelligent production line equipment, used to achieve device positioning and path planning. Navigation systems include: lidar, cameras, GPS, magnetic strip sensors, and more. Additionally, landmarks and signposts serve as positioning markers.
- The control system is responsible for managing and scheduling the operation and tasks of AGVs and RGVs. Composed of components such as vehicle controllers, path planning algorithms, and task schedulers, the control system enables intelligent and safe driving of the vehicles.
- Power Supply and Charging Equipment: Intelligent AGVs and RGVs require a power supply to drive their motors and various electronic devices. Charging equipment is typically installed in designated areas of the factory, enabling automatic charging of the devices to ensure their continuous operational capability.
- The safety system is a critical component for ensuring the security of AGVs, RGVs, and personnel. It includes emergency stop devices, anti-collision sensors, safety zone setup devices, and more.





BD SERIES
LOAD CAPACITY: 2T-50T

BATTERY FIXED PLATFORM TRUCK

Single-side semi-convertible Cap | Semi-convertible Cap



Fully enclosed Cap | Single-side fully enclosed Cap



Single-side fully convertible Cap | Fully convertible Cap



Load capacity:2 - 4(T)

BD SERIES	LOAD CAPABILITY:2-4(T)					● Standard configuration		○ Optional		× NON		
Parameter List	Item NO.	HSBD 002			HSBD 003			HSBD 004				
	Optional	Standard configuration	High end		Standard configuration	High end		Standard configuration	High end			
	Load capacity(T)	2			3			4				
	Load table dim.(mm)	L2400×W1500×H<750			L2400×W1500×H<770			L3000×W1500×H<800				
	Motor power(KW)	8.6	11.6		11.6	13.5		13.5	16.1			
	No-load max speed (km/h)	≥20			≥20			≥20				
	Full-load max speed (km/h)	≥16			≥16			≥16				
	Climb ability	8%×15	12%×15		8%×15	12%×15		8%×15	12%×15			
	Battery capacity(Wh)	13800	16560		13800	16560		16560	17640			
	Tire	Pneumatic tires										
Optional Functions	Cab optional(●)											
	Item NO.	Optional	Fence	Lithium battery	Automatic water refilling	Permanent magnet brushless full hydraulic steering	Indicator	A/C	Solid tire	Backup camera		
	HSBD-002	Standard configuration	○	○	○	●	○	○	○	○		
		High end	○	○	○	●	○	○	○	○		
	HSBD-003	Standard configuration	○	○	○	●	○	○	○	○		
		High end	○	○	○	●	○	○	○	○		
	HSBD-004	Standard configuration	○	○	○	●	○	○	○	○		
		High end	○	○	○	●	○	○	○	○		

1-Fan & USB charging in full enclose cab 2-Cup holder for every items 3-Cell phone holder for every items 4-High and low speed toggle switch
5-Reverse half speed safety function 6-Permanent magnet brushless full hydraulic steering 7-Shock absorbing seat

Load capacity:5 - 12 (T)

BD SERIES	LOAD CAPABILITY:5-12(T)						● Standard configuration		○ Optional		× NON	
Parameter List	Item NO.	HSBD 005			HSBD 008			HSBD 010		HSBD 012		
	Optional	Standard configuration	High end	Standard configuration	High end	Standard configuration	High end	Standard configuration	High end	Standard configuration	High end	
	Load capacity(T)	5			8			10		12		
	Load table dim.(mm)	L3600×W1600×H<870			L3800×W1800×H<900			L4000×W2000×H<950		L4500×W2200×H<990		
	Motor power(KW)	16.1	20.6	20.6	25.6	25.6	27.8	27.8	30.2			
	No-load max speed (km/h)	≥16	≥20	≥16	≥20	≥16	≥20	≥15	≥18			
	Full-load max speed (km/h)	≥13	≥16	≥13	≥16	≥13	≥16	≥12	≥13			
	Climb ability	8%×15	12%×15	8%×15	12%×15	8%×15	12%×15	8%×15	12%×15			
	Battery capacity(Wh)	17640	20160	20160	23760	23760	26400	23760	26400			
	Tire	Pneumatic tires										
Optional Functions	Cab optional(●)											
	Item NO.	Optional	Fence	Lithium battery	Automatic water refilling	Hydraulic brake	Pneumatic braking	Indicator	A/C	Solid tire	Backup camera	Permanent magnet brushless full hydraulic steering
	HSBD-005	Standard configuration	○	○	○	×	×	○	○	○	○	●
		High end	○	○	○	×	×	○	○	○	○	●
	HSBD-008	Standard configuration	○	○	○	×	×	○	○	○	○	●
		High end	○	○	○	×	×	○	○	○	○	●
	HSBD-010	Standard configuration	○	○	○	×	×	○	○	○	○	●
		High end	○	○	○	×	×	○	○	○	○	●
	HSBD-012	Standard configuration	○	○	○	×	×	○	○	○	○	●
		High end	○	○	○	×	×	○	○	○	○	●

Load capacity:15 - 25 (T)

BD SERIES	LOAD CAPABILITY:15-25(T)					● Standard configuration ○ Optional × NON							
Parameter List	Item NO.	HSBD 015			HSBD 020				HSBD 025				
	Optional	Standard configuration	High end		Standard configuration	High end			Standard configuration	High end			
	Load capacity(T)	15			20				25				
	Load table dim.(mm)	L6000xW2500xH<1040			L6000×W2500×H<1100				L6500×W2500×H<1300				
	Motor power(KW)	30.2	30.2		33.2	36.8			36.8	42.6			
	No-load max speed (km/h)	≥13	≥15		≥12				≥11				
	Full-load max speed (km/h)	≥11	≥13		≥10				≥9				
	Climb ability	8% x 15	12% x 15		6%×12	8%×12			6%×12	8%×12			
	Battery capacity(Wh)	26400	35200		35200	49600			49600	56000			
	Tire	Pneumatic tires											
Optional Functions	Cab optional(●)												
	Item NO.	Optional	Fence	Lithium battery	Automatic water refilling	Hydraulic brake	Pneumatic braking	Indicator	A/C	Solid tire	Backup camera		
	HSBD-015	Standard configuration	○	○	○	×	×	○	○	○	●		
		High end	○	○	○	×	×	○	○	○	●		
	HSBD-020	Standard configuration	○	○	○	●	×	○	○	○	●		
		High end	○	○	○	●	×	○	○	○	●		
	HSBD-025	Standard configuration	○	○	○	●	×	○	○	○	●		
		High end	○	○	○	●	×	○	○	○	●		

1-Fan & USB charging in full enclose cab 2-Cup holder for every items 3-Cell phone holder for every items 4-High and low speed toggle switch
5-Reverse half speed safety function 6-Permanent magnet brushless full hydraulic steering 7-Shock absorbing seat

Load capacity:30 - 50 (T)

BD SERIES	LOAD CAPABILITY:30-50(T)						● Standard configuration				○ Optional	× NON	
Parameter List	Item NO.	HSBD 030					HSBD 040				HSBD 050		
	Optional	/					/				/		
	Load capacity(T)	30					40				50		
	Load table dim.(mm)	L7000×W2500×H<1300					L7000×W2500×H<1350				L7500×W2800×H<1350		
	Motor power(KW)	49.8					49.8				46.3×2		
	No-load max speed (km/h)	≥10					≥10				≥9		
	Full-load max speed (km/h)	≥8					≥8				≥7		
	Climb ability	6%×12					6%×12				6%×12		
	Battery capacity(Wh)	56000					56000				66240		
	Tire	Pneumatic tires											
Optional Functions	Cab optional(●)												
	Item NO.	Optional	Fence	Lithium battery	Automatic water refilling	Hydraulic brake	Pneumatic braking	Indicator	A/C	Solid tire	Backup camera	Permanent magnet brushless AC hydraulic steering	
	HSBD-030	/	○	○	○	×	●	●	○	○	●	○	
	HSBD-040	/	○	○	○	×	●	●	○	○	●	○	
	HSBD-050	/	○	○	○	●	×	●	○	○	●	○	



WPX SERIES

LOAD CAPACITY:3T-200T

TRACKLESS FLAT CAR

WPX Specification

(● Standard configuration ○ Optional × NON)

Parameters List										Optional Functions					
Item NO.	Configuration	Load capacity (T)	Standard configuration functions	Load table dim. (mm)	Motor power (KW)	Max speed (km/h)	Climb ability	Battery	Tire	Wireless remote control	Hydraulic lifting device	Touch sensitive anti-collision devices	Front/rear induction type security protection	LiDAR sensor	Steering speed joystick control and automatic direction correction
WPX-3	Standard configuration	3	1.Four-Corner emergency buttons 2.Indicator light 3.Safety fence 4.Wireless remote + 1 wire Handle remote + control buttons 5.Tow device 6.Reverse half speed safety function 7.Direction-switching function 8.Power stop brake 9.7-Inch LED color multi-function digital display 10.Permanent magnet synchronous brushless full hydraulic steering 11.Operation buttons	L 2500 x W 1500	4.5	≥30	6%×15	Lead acid	6.00-9 Solid tire	○	○	○	○	○	○
	High end				5		10%×15	Lithium		○	○	○	○	○	○
WPX-5	Standard configuration	5		L 3000 x W 1500	5	≥30	6%×15	Lead acid	6.00-9 Solid tire	○	○	○	○	○	○
	High end				6.4		10%×15	Lithium		○	○	○	○	○	○
WPX-10	Standard configuration	10		L 3500 x W 1800	6.4	≥30	6%×15	Lead acid	φ 559 Solid fitted tire	○	○	○	○	○	○
	High end				8.6		10%×15	Lithium		○	○	○	○	○	○
WPX-15	Standard configuration	15		L 3500 x W 2000	8.6	≥30	6%×15	Lead acid	φ 559 Solid fitted tire	○	○	○	○	○	○
	High end				11.6		10%×15	Lithium		○	○	○	○	○	○
WPX-20	Standard configuration	20		L 4000 x W 2200	11.6	≥30	6%×15	Lead acid	φ 559 Solid fitted tire	○	○	○	○	○	○
	High end				14.5		10%×15	Lithium		○	○	○	○	○	○
WPX-25	Standard configuration	25		L 4500 x W 2200	14.5	≥30	6%×15	Lead acid	φ 559 Solid fitted tire	○	○	○	○	○	○
	High end				16.1		10%×15	Lithium		○	○	○	○	○	○
WPX-30	Standard configuration	30		L 4500 x W 2400	16.1	≥30	6%×15	Lead acid	φ 559 Solid fitted tire	○	○	○	○	○	○
	High end				20.6		10%×15	Lithium		○	○	○	○	○	○
WPX-40	Standard configuration	40		L 5000 x W 2500	20.6	≥30	6%×15	Lead acid	φ 711 Polyurethane solid tire	○	○	○	○	○	○
	High end				25.6		10%×15	Lithium		○	○	○	○	○	○
WPX-50	Standard configuration	50		L 5500 x W 2500	25.6	≥30	6%×15	Lead acid	φ 711 Polyurethane solid tire	○	○	○	○	○	○
	High end				30.6		10%×15	Lithium		○	○	○	○	○	○
WPX-60	Standard configuration	60		L 6000 x W 2500	16.1×2	≥30	6%×15	Lead acid	φ 600 Polyurethane solid tire	○	○	○	○	○	○
	High end				20.6×2		10%×15	Lithium		○	○	○	○	○	○
WPX-80	Standard configuration	80		L 6500 x W 2500	20.6×2	≥30	5%×15	Lead acid	φ 600 Polyurethane solid tire	○	○	○	○	○	○
	High end				25.6×2		8%×15	Lithium		○	○	○	○	○	○
WPX-100	Standard configuration	100		L 7000 x W 3000	25.6×2	≥25	5%×15	Lead acid	φ 600 Polyurethane solid tire	○	○	○	○	○	○
	High end				30.6×2		8%×15	Lithium		○	○	○	○	○	○



KP SERIES
LOAD CAPACITY: 5T-500T

RAIL FLAT CAR

KP
Function Introduction

Function Introduction
↓



KP series Parameters List											
A:Lead-acid battery C:Lead-acid maintenance free battery S:Lithium battery ○ Optional × NON											
Parameter List						Dynamical System					
Item NO.	Load capacity (T)	Load table dim. (mm)	Motor power (KW)	High/low speed (m/min)	Steel wheel ϕ(mm)	KP non-power	KPX battery power	KPDZ rail power	KPH sliding contact line power	KPT cable reel power	KPL drag chain power
KP(+)5	5	L 3000×W 1800×H <460	4.5	40/15	Φ 250	○	A / C / S	○	○	○	○
KP(+)10	10	L 3200×W 2000×H <490	6.4	40/15	Φ 350	○	A / C / S	○	○	○	○
KP(+)15	15	L 3500×W 2000×H <530	7.6	40/15	Φ 350	○	A / C / S	○	○	○	○
KP(+)20	20	L 3500×W 2200×H <590	8.6	40/15	Φ 420	○	A / C / S	○	○	○	○
KP(+)25	25	L 3500×W 2200×H <590	10.2	40/15	Φ 420	○	A / C / S	○	○	○	○
KP(+)30	30	L 3800×W 2200×H <680	11.6	40/15	Φ 520	○	A / C / S	○	○	○	○
KP(+)35	35	L 4000×W 2200×H <710	13.5	40/15	Φ 520	○	A / C / S	○	○	○	○
KP(+)40	40	L 4200×W 2200×H <710	14.8	40/15	Φ 520	○	A / C / S	○	○	○	○
KP(+)45	45	L 4500×W 2200×H <720	16.1	40/15	Φ 520	○	A / C / S	○	○	○	○
KP(+)50	50	L 5000×W 2400×H <750	17	40/15	Φ 520	○	A / C / S	○	○	○	○
KP(+)60	60	L 5000×W 2400×H <750	18.6	40/15	Φ 520	○	A / C / S	○	○	○	○
KP(+)80	80	L 5500×W 2400×H <780	20.6	30/11	Φ 600	○	A / C / S	○	○	○	○
KP(+)100	100	L 5500×W 2400×H <900	25.6	30/11	Φ 700	○	A / C / S	○	○	○	○
KP(+)120	120	L 6000×W 2400×H <950	27.8	30/11	Φ 600	○	A / C	○	○	×	○
KP(+)150	150	L 6500×W 2600×H <1100	16.1 ×2	30/11	Φ 600	○	A / C	○	○	×	○
KP(+)200	200	L 7000×W 2600×H <1300	20.6 ×2	30/11	Φ 700	○	A / C	○	○	×	○
KP(+)300	300	L 10000×W 3200×H <1300	16.1 ×4	20/10	Φ 500	○	A / C	○	○	×	○
KP(+)500	500	L 12000×W 3500×H <1300	20.6 ×5	20/10	Φ 500	○	A / C	○	○	×	○

KP series Optional Configuration List																	
(● Standard configuration ○ Optional × NON)																	
Load capacity (T)	Standard configuration	Explosion-proof parts	Ladder	On-board panel	Wireless remote control	On-board control buttons	Rail cleaning device	Surround fence	Tow device	Anti-collision buffer block	Safety contact edge	Inductive security protection	Multi-position point parking	Weighing function	Customized loading table sizes	Customized automation function	Rail end protection devices
5	1.Folding electronic control box for easy inspect	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
10		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
15		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
20		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
25	2.High and low dual-speed mode	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
30	3.Soft start, soft stop, infinitely variable speed	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
40		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
45	4.Power stop barking	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
50	5.Indicator	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
60	6.Driving alarm system	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
80	7.Access key	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
100	8.Wire remote	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
120	9.Drawer-type battery box	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
150	10.7-Inch intelligent multi-function dashboard	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
200		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
300		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
500		○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Example Of Optional Function



Explosion-proof charging plug



Explosion-proof battery pack



Explosion-proof motor



Explosion-proof electric control box and wire handle



Explosion-proof indicator



Ladders



On-board panel



Wireless remote control



On-board control buttons



Rail cleaning device



Customized turning functions



Surround fence



Tow device



Anti-collision buffer block



Safety contact edge



Inductive security protection



Rail end protection devices



PT SERIES

LOAD CAPACITY:2T-100T

PLATFORM TRAILER

PT series Parameters List						
Item NO.	Load capacity(T)	Load table dim.(mm)	Max speed (km/h)	Steering model	Towing frame status	Tire
PT-10	10	L4000×W1800×H<800	25	Turntable steering	Self-Balance	Pneumatic tires
PT-15	15	L5000×W2000×H<800	25	Turntable steering	Self-Balance	Pneumatic tires
PT-20	20	L5500×W2200×H<900	25	Turntable steering	Self-Balance	Pneumatic tires
PT-25	25	L6000×W2400×H<950	20	Turntable steering	Self-Balance	Pneumatic tires
PT-30	30	L6000×W2500×H<950	20	Turntable steering	Self-Balance	Pneumatic tires
PT-40	40	L6500×W2500×H<1000	20	Turntable steering	Self-Balance	Pneumatic tires
PT-50	50	L7000×W2600×H<1050	20	Turntable steering	Self-Balance	Pneumatic tires
PT-60	60	L7500×W2800×H<1150	16	Turntable steering	Self-Balance	Pneumatic tires
PT-80	80	L8000×W3000×H<1150	16	Turntable steering	Self-Balance	Pneumatic tires
PT-100	100	L10000×W3000×H<1250	16	Turntable steering	Self-Balance	Pneumatic tires

PT series Optional Configuration List										
(● Standard configuration ○ Optional × NON)										
Model Range	Load capacity:10-20(T)			Load capacity:25-50(T)				Load capacity:60-100(T)		
Load Capacity(T)	10	15	20	25	30	40	50	60	80	100
Fully/semi Enclosed container	○	○	○	○	○	○	○	○	○	○
Van Fence	○	○	○	○	○	○	○	○	○	○
Accompanying Toolbox	○	○	○	○	○	○	○	○	○	○
Service Brake	○	○	○	○	○	○	○	○	○	○
Handbrake Parking Brake	○	×	×	×	×	×	×	×	×	×
Tire Clutch Parking Brake	○	○	×	×	×	×	×	×	×	×
Air Break Parking Brake	×	○	○	○	○	○	○	○	○	○
Solid Tire	○	○	○	○	○	○	○	●	●	●
Traction Bar Cushioning	●	●	●	●	●	●	●	●	●	●
Surrounding Safety Fence	○	○	○	○	○	○	○	○	○	○
Multi-section Tow Service	○	×	×	×	×	×	×	×	×	×
Auxiliary Outriggers	○	○	○	○	○	○	○	○	○	○
Rear Light	○	○	○	○	○	○	○	○	○	○
Reflective Stickers	○	○	○	○	○	○	○	○	○	○
Tire Steering	×	×	×	×	×	×	×	×	×	×
Dual-direction Towing	○	○	○	○	○	○	○	○	○	○
Customized Load Table	○	○	○	○	○	○	○	○	○	○



QSD SERIES

LOAD CAPACITY:2T-35T

ELECTRIC TRACTOR



TRACTOR

Horizontal QSD Tractor

LOAD CAPACITY:8T-40T



QSD series Specification List								
(● Standard configuration ○ Optional × NON)								
QSD	Item NO.	QSD-8	QSD-10	QSD-15	QSD-20	QSD-25	QSD-30	QSD-35
Parameter List	Towing Capability(T)	8	10	15	20	25	30	35
	Chassis	Four-wheels	Four-wheels	Four-wheels	Four-wheels	Four-wheels	Four-wheels	Four-wheels
	Dimensions	L3520×W1320	L3520×W1320	L3520×W1320	L3520×W1320	L3785×W1500	L3785×W1500	L3785×W1500
	Motor Powe (KW)	27.8	27.8	35.2	35.2	48.2	58.4	61.8
	No-load Max Speed(km/h)	≥12	≥12	≥12	≥12	≥12	≥12	≥12
	Full-load Max Speed(km/h)	≥10	≥10	≥10	≥10	≥10	≥10	≥10
	Climb Ability	8% x 15	8% x 15	8% x 15	8% x 15	8% x 15	6% x 15	6% x 15
	Towing Pin Heiht	390	390	390	390	390	390	390
	Battery Energy (Wh)	20160	23760	30240	40000	48000	57600	57600
Cab	Tire	Pneumatic tires FR.700-9/ RE.28*9-15	Pneumatic tires FR.700-9/ RE.28*9-15	Pneumatic tires FR.700-9/ RE.28*9-15	Pneumatic tires FR.700-9/ RE.28*9-15	Pneumatic tires FR.700-9/ RE.28*9-15	Pneumatic tires FR.700-9/ RE.28*9-15	Pneumatic tires FR.700-9/ RE.28*9-15
	Semi-Convertible	○	○	○	○	○	○	○
Optional Functions	Fully Enclosed Cap	○	○	○	○	○	○	○
	Lithium Battery	○	○	○	○	○	○	○
	Automatic water refilling	○	○	○	○	○	○	○
	Shock Absorbing Seat	●	●	●	●	●	●	●
	Indicator	○	○	○	○	○	○	○
	A/C	○	○	○	○	○	○	○
	Solid Tire	○	○	○	○	○	○	○

Standard Configuration ➡

Hydraulic Steering Wheel



Shock Absorbing Seat



HM Switch





Vertical QD Tractor
LOAD CAPACITY:2T-15T



QSD series Specification List

(● Standard configuration ○ Optional × NON)

QSD	Item NO.	QSD-3	QSD-6	QSD-8	QSD-10	QSD-15
Parameter List	Towing capability(T)	3	6	8	10	15
	Chassis	Three-wheels	Three-wheels	Four-wheels	Four-wheels	Four-wheels
	Dimensions	H1730× L980	H1980× L1100	L2570 × W1280	L2570 × W1280	L2570 × W1280
	Motor Powe(KW)	11.6	16.1	20.8	27.8	35.2
	No-load Max Speed (km/h)	≥15	≥15	≥12	≥12	≥12
	Full-load Max Speed (km/h)	≥10	≥10	≥10	≥10	≥10
	Climb Ability	3% x 15	3% x 10	8% x 15	8% x 15	8% x 15
	Towing Pin Height	305/350	320/390	390/465	390/465	390/465
	Battery Energy(Wh)	11520	12960	16560	23760	31680
Cab	Tire	Solid tire	Solid tire	Pneumatic tires FR.6.00-9/ RE.28*9-15	Pneumatic tires FR.6.00-9/ RE.28*9-15	Pneumatic tires FR.6.00-9/ RE.28*9-15
	Fully-convertible	○	○	○	○	○
Optional Functions	Semi-convertible	○	○	○	○	○
	Lithium Battery	○	○	○	○	○
	Automatic Water Refilling	○	○	○	○	○
	Shock Absorbing Seat	○	○	●	●	●
	Indicator	×	×	○	○	○
	A/C	×	×	○	○	○
	Solid Tire	○	○	○	○	○

Standard Configuration



Hydraulic Steering Wheel



Shock Absorbing Seat



HM Switch



RGV SERIES
LOAD CAPACITY:5T-200T

RAIL GUIDED VEHICLE
AUTOMATERD RAIL FLAT CAR

RGV Technical Parameter

Type \ Model		RGV-5	RGV-10	RGV-15
Size of loading table(mm)		3000×1800	3200×2000	3500×2000
Rated loadin capacity(T)		5	10	15
Max speed (m/min)		40	40	40
Drive motor power(kw*Q'ty)		1.5×1	2.2×1	2.2×1
Power source		LFP Battery		
Dia. of wheel		φ250×4	φ350×4	φ350×4
Voltage(v)		25.6	51.2	51.2
Battery capacity (Ah)		150	150	150
Charging Method	Manual charging	●	●	●
	Auto charging	○	○	○
Charging time (≤h)		3	3	3
Positioning Accuracy(mm)	RFID Positioning	±30	±30	±30
	approach switch	±10	±10	±10
	Magnetic tape QR code/Laser position	±5	±5	±5
Wireless network	2.4G/5G	○	○	○
Bumper	Front/Rear/Sides /bumper	○	○	○
Contactless Safety device	Infrared sensor	○	○	○
	Front&rear laser obstacle sensor	○	○	○
Safety sensing range	1m Infrared sensor	○	○	○
	4m	○	○	○
	10m	○	○	○
Emergency stop buttons		●	●	●
Power optional	LEP Battery	●	●	●
	Low voltage track	○	○	○
	Slide wire	○	○	○
	Dragged cable	○	○	○
Function Optional	Latent lifting	○	○	○
	Roller table	○	○	○
	Track exchange	○	○	○
	Combined shuttle	○	○	○
	Transmission chain table	○	○	○
	Turnable table	○	○	○
	Forklift RGV	○	○	○

RGV Technical Parameter

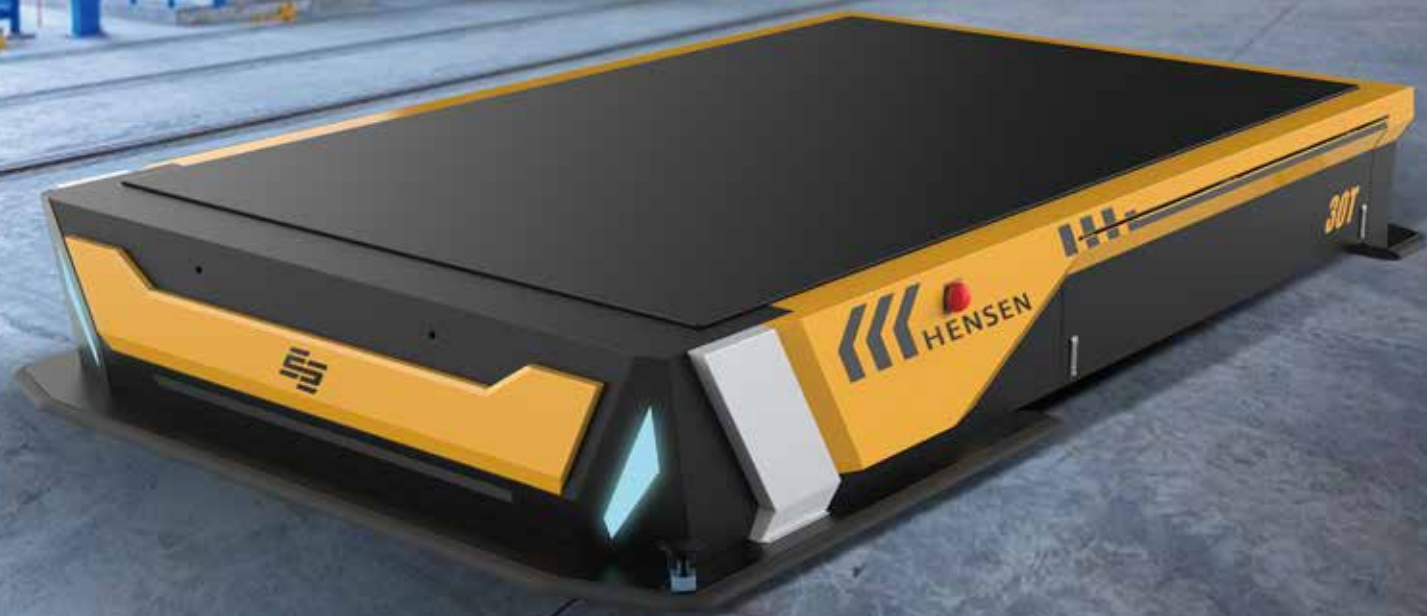
Type \ Model		RGV-20	RGV-25	RGV-30	RGV-40
Size of loading table(mm)		3500×2200	3800×2200	3800×2200	4200×2200
Rated loadin capacity(T)		20	25	30	40
Max speed (m/min)		40	40	40	40
Drive motor power(kw*Q'ty)		3×1	3×1	4×1	4×1
Power source		LFP Battery			
Dia. of wheel		φ420×4	φ420×4	φ420×4	φ420×4
Voltage(v)		51.2	51.2	51.2	51.2
Battery capacity (Ah)		150	150	150	150
Charging Method	Manual charging	●	●	●	●
	Auto charging	○	○	○	○
Charging time (≤h)		3	3	3	3
Positioning Accuracy(mm)	RFID Positioning	±30	±30	±30	±30
	approach switch	±10	±10	±10	±10
	Magnetic tape QR code/Laser position	±5	±5	±5	±5
Wireless network	2.4G/5G	○	○	○	○
Bumper	Front/Rear/Sides /bumper	○	○	○	○
Contactless Safety device	Infrared sensor	○	○	○	○
	Front&rear laser obstacle sensor	○	○	○	○
Safety sensing range	1m Infrared sensor	○	○	○	○
	4m	○	○	○	○
	10m	○	○	○	○
Emergency stop buttons		●	●	●	●
Power optional	LEP Battery	●	●	●	●
	Low voltage track	○	○	○	○
	Slide wire	○	○	○	○
	Dragged cable	○	○	○	○
Function Optional	Latent lifting	○	○	○	○
	Roller table	○	○	○	○
	Track exchange	○	○	○	○
	Combined shuttle	○	○	○	○
	Transmission chain table	○	○	○	○
	Turnable table	○	○	○	○
	Forklift RGV	○	○	○	○

RGV Technical Parameter

Type \ Model		RGV-50	RGV-60	RGV-80
Size of loading table(mm)		5000×2400	5000×2400	5500×2400
Rated loadin capacity(T)		50	60	80
Max speed (m/min)		30	30	30
Drive motor power(kw*Q'ty)		6.6×1	6.6×1	8×1
Power source		LFP Battery		
Dia. of wheel		Φ420×4	Φ420×4	Φ420×4
Voltage(v)		51.2	51.2	76.8
Battery capacity (Ah)		150	150	150
Charging Method	Manual charging	●	●	●
	Auto charging	○	○	○
Charging time (≤h)		3	3	3
Positioning Accuracy(mm)	RFID Positioning	±30	±30	±30
	approach switch	±10	±10	±10
	Magnetic tape QR code/Laser position	±5	±5	±5
Wireless network	2.4G/5G	○	○	○
Bumper	Front/Rear/Sides /bumper	○	○	○
Contactless Safety device	Infrared sensor	○	○	○
	Front&rear laser obstacle sensor	○	○	○
Safety sensing range	1m Infrared sensor	○	○	○
	4m	○	○	○
	10m	○	○	○
Emergency stop buttons		●	●	●
Power optional	LEP Battery	●	●	●
	Low voltage track	○	○	○
	Slide wire	○	○	○
	Dragged cable	○	○	○
Function Optional	Latent lifting	○	○	○
	Roller table	○	○	○
	Track exchange	○	○	○
	Combined shuttle	○	○	○
	Transmission chain table	○	○	○
	Turnable table	○	○	○
	Forklift RGV	○	○	○

RGV Technical Parameter

Type \ Model		RGV-100	RGV-120	RGV-160	RGV-200	RGV-300	RGV-500
Size of loading table(mm)		5500×2400	6000×2400	6500×2600	7000×2800	10000×3200	12000×3500
Rated loadin capacity(T)		100	120	160	200	300	500
Max speed (m/min)		25	25	20	20	20	20
Drive motor power(kw*Q'ty)		8×1	10×1	8×2	8×2	5.5×4	7.5×5
Power source		LFP Battery					
Dia. of wheel		Φ460×4	Φ460×4	Φ420×6	Φ360×10	Φ360×20	Φ420×24
Voltage(v)		76.8	76.8	76.8	76.8	83.2	83.2
Battery capacity (Ah)		150	205	270	300	300	300
Charging Method	Manual charging	●	●	●	●	●	●
	Auto charging	○	○	○	○	○	○
Charging time (≤h)		3	2	3	3	3	4
Positioning Accuracy(mm)	RFID Positioning	±30	±30	±30	±30	±30	±30
	approach switch	±10	±10	±10	±10	±10	±10
	Magnetic tape QR code/Laser position	±5	±5	±5	±5	±5	±5
Wireless network	2.4G/5G	○	○	○	○	○	○
Bumper	Front/Rear/Sides /bumper	○	○	○	○	○	○
Contactless Safety device	Infrared sensor	○	○	○	○	○	○
	Front&rear laser obstacle sensor	○	○	○	○	○	○
Safety sensing range	1m Infrared sensor	○	○	○	○	○	○
	4m	○	○	○	○	○	○
	10m	○	○	○	○	○	○
Emergency stop buttons		●	●	●	●	●	●
Power optional	LEP Battery	●	●	●	●	●	●
	Low voltage track	○	○	○	○	○	○
	Slide wire	○	○	○	○	○	○
	Dragged cable	○	○	○	○	○	○
Function Optional	Latent lifting	○	○	○	○	○	○
	Roller table	○	○	○	○	○	○
	Track exchange	○	○	○	○	○	○
	Combined shuttle	○	○	○	○	○	○
	Transmission chain table	○	\	\	\	\	\
	Turnable table	○	○	○	○	○	○
	Forklift RGV	\	\	\	\	\	\



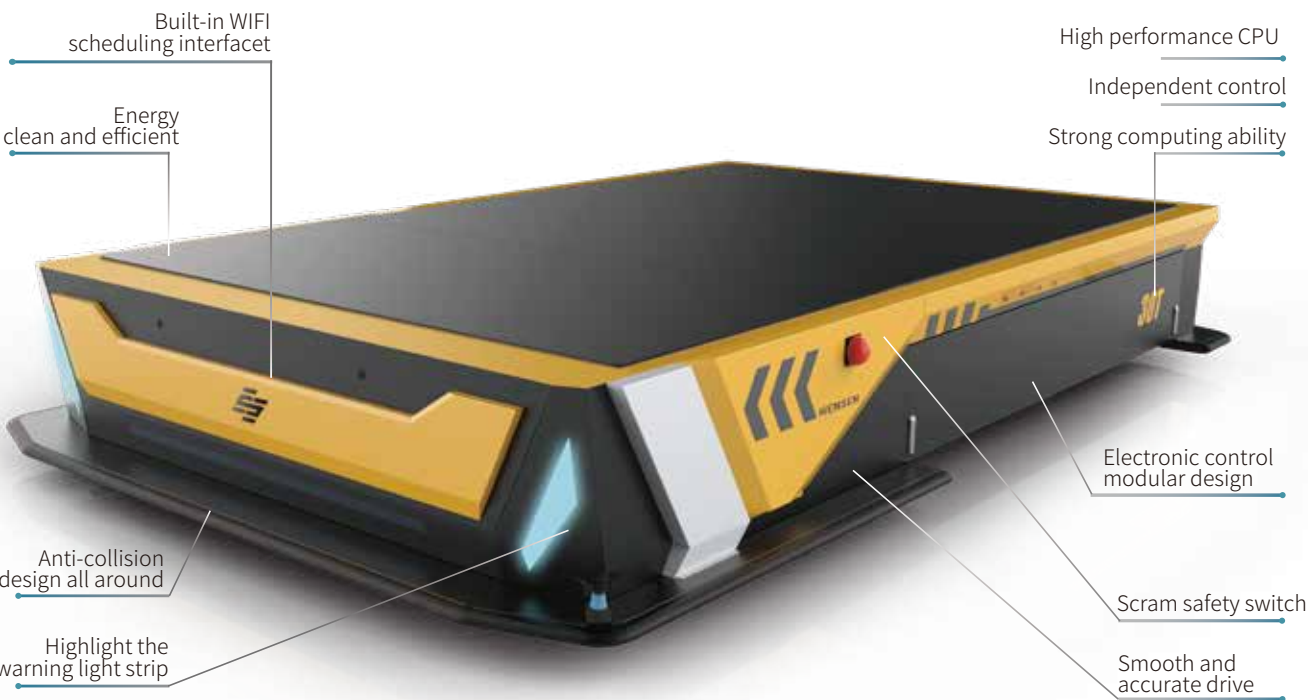
AGV SERIES
LOAD CAPACITY: 2T-100T

AUTOMATED GUIDED VEHICLE

Type \ Model		AGV-2	AGV-5
Size of loading table(mm)		2200×1200	2500×1500
Rated loadin capacity(T)		2	5
Max speed (m/min)		40	40
Travel director		transversely/longitudinally/diagonally/spot turn	
Driving method		Dual steering wheels drive	
Drive motor power(kw*Q'ty)		0.75×2	3×2
Power source		Lithium battery	
Tire		polyurethane solid tires	
Dia of wheel	Driving wheel	200	260
	Universal wheel	200	250
Voltage(v)		25.6	51.2
Battery capacity(Ah)		150	150
Charging Method	Manual charging	●	●
	Auto Charging	○	○
Charging time (≤h)		3	3
Navigation Method	Megnetic tape navigation	○	○
	Optical Navigation	○	○
	Laser SLAM Navigation	○	○
	Ourdoor RTK	○	○
Navigation Accuracy(mm)	Magnetic/optical/Laser SLAM	±10	±10
	RFID Positioning	±30	±30
	Magnetic tape QR code/Laser position	±10	±10
Positioning Accuracy	Ourdoor RTK	\	\
	2.4G/5G	○	○
	Wireless network	○	○
Bumper	Front&Rear bumper	●	●
	Two sides bumper	○	○
Contactless safety device	Front&rear laser obstacle sensor	○	○
Safety sensing range	4m	○	○
	10m	○	○
Emergency stop buttons		●	●
Latent lifting function		○	○
Self-balancing system		\	\
Dispatching system		○	○

AGV

10-40t Double Differential Steering Wheel Drive



- It's FULLY AUTOMATED INTELLIGENT PRODUCTS, with a manual remote controllers allowing for human-operated, and the AGV also goes a step further by offering the capability to automatically transport materials
- LOAD CAPACITY: 2-200 (T)
- LOW-NOISE, POLLUTION-FREE, ZERO-EMISSION, environmental protection.
- MULTIPLE SAFETY PROTECTION DEVICE for keep the personal safety in the operation.
- MODULAR ELECTRIC CONTROL SYSTEM: ensuring smooth and precise operation during vehicle propulsion. Additionally, it provides effective protection for battery power output, significantly extending the lifespan of both the battery and the motor.



Type \ Model		AGV-10	AGV-15	AGV-20	AGV-25	AGV-30	AGV-40
Size of loading table(mm)		3500×1800	3500×2000	3800×2000	3800×2000	4000×2500	4000×2500
Rated loadin capacity(T)		10	15	20	25	30	40
Max speed (m/min)		30	30	30	30	30	30
Travel director		transversely/longitudinally/diagonally/spot turn					
Driving method		Dual differential steering wheels drive					
Drive motor power(kw*Q'ty)		1.5×4	3×4	3×4	3×4	4×4	5×4
Power source		Lithium battery					
Tire		polyurethane solid tires					
Dia of wheel	Driving wheel	260	300	300	300	440	440
	Universal wheel	250	300	300	300	350	440
Voltage(v)		51.2	51.2	51.2	51.2	76.8	76.8
Battery capacity(Ah)		150	230	230	280	205	280
Charging Method	Manual charging	●	●	●	●	●	●
	Auto Charging	○	○	○	○	○	○
Charging time (≤h)		3	2	2	2	2	2
Navigation Method	Megnetic tape navigation	○	○	○	○	○	○
	Optical Navigation	○	○	○	○	○	○
	Laser SLAM Navigation	○	○	○	○	○	○
	Ourdoor RTK	○	○	○	○	○	○
Navigation Accuracy(mm)	Magnetic/optical/Laser SLAM	±10	±10	±10	±10	±10	±10
	RFID Positioning	±30	±30	±30	±30	±30	±30
Positioning Accuracy	Magnetic tape QR code/Laser position	±10	±10	±10	±10	±10	±10
	Ourdoor RTK	±25	±25	±25	±25	±25	±25
Wireless network	2.4G/5G	○	○	○	○	○	○
Bumper	Front&Rear bumper	●	●	●	●	●	●
	Two sides bumper	○	○	○	○	○	○
Contactless safety device	Front&rear laser obstacle sensor	○	○	○	○	○	○
Safety sensing range	4m	○	○	○	○	○	○
	10m	○	○	○	○	○	○
Emergency stop buttons		●	●	●	●	●	●
Latent lifting function		○	○	○	○	○	○
Self-balancing system		\	○	○	○	○	○
Dispatching system		○	○	○	○	○	○

AGV

50-100t Four Differential Steering Wheel Drive

Energy clean and efficient

Highlight the warning light strip



Anti-collision design all around

Built-in WIFI scheduling interface

Scram safety switch

High performance CPU

Independent control

Strong computing ability

Electronic control modular design

Smooth and accurate drive

- MULTIPLE DRIVING MODELS: 3 types driving wheel for differential load capacity.
- MULTI-DIRECTIONAL DIRVING: lateral (sideways), longitudinal (forward/backward), and crab walking (diagonal)
- AUTO DOUBLE OR MULTI-VEHICLE SYNCHRONOUS, two short AGV also could transport the long stripe material.
- AUTO NAVIGATION SYSTEM: 4 kinds type navigation for different sites and workshop condition.
- AUTOMATIC LIFTING PLATFORM: an automatic lifting device can be installed on the platform to further enhance functionality.



Type \ Model		AGV-50	AGV-60	AGV-80	AGV-100	AGV-150	AGV-200
Size of loading table(mm)		5500×2500	6000×2800	6500×3000	7000×3100	7000×3200	8000×3200
Rated loadin capacity(T)		50	60	80	100	150	200
Max speed (m/min)		30	30	25	25	25	25
Travel director		transversely/longitudinally/diagonally/spot turn					
Driving method		3 differential steering wheels drive	4 differential steering wheels drive	4 differential steering wheels drive	4 differential steering wheels drive	6 differential steering wheels drive	6 differential steering wheels drive
Drive motor power(kw*Q'ty)		4×8	4×8	4×8	5×8	4×12	5×12
Power source		Lithium battery					
Tire		polyurethane solid tires					
Dia of wheel	Driving wheel	440	440	500	500	500	500
	Universal wheel	\	\	\	\	\	\
Voltage(v)		76.8	76.8	83.2	83.2	83.2	83.2
Battery capacity(Ah)		300	350	450	540	540	540
Charging Method	Manual charging	●	●	●	●	●	●
	Auto Charging	○	○	○	○	○	○
Charging time (≤h)		2	2.5	3	3.5	3.5	3.5
Navigation Method	Megnetic tape navigation	○	○	○	○	○	○
	Optical Navigation	○	○	○	○	○	○
	Laser SLAM Navigation	○	○	○	○	○	○
	Ourdoor RTK	○	○	○	○	○	○
Navigation Accuracy(mm)	Magnetic/optical/Laser SLAM	±10	±10	±10	±10	±10	±10
	RFID Positioning	±30	±30	±30	±30	±30	±30
Positioning Accuracy	Magnetic tape QR code/Laser position	±10	±10	±10	±10	±10	±10
	Ourdoor RTK	±25	±25	±25	±25	±25	±25
Wireless network	2.4G/5G	○	○	○	○	○	○
Bumper	Front&Rear bumper	●	●	●	●	●	●
	Two sides bumper	○	○	○	○	○	○
Contactless safety device	Front&rear laser obstacle sensor	○	○	○	○	○	○
Safety sensing range	4m	○	○	○	○	○	○
	10m	○	○	○	○	○	○
Emergency stop buttons		●	●	●	●	●	●
Latent lifting function		○	○	○	○	○	○
Self-balancing system		○	○	○	○	○	○
Dispatching system		○	○	○	○	○	○



The advantages of intelligent production line

- **Enhancing Production Efficiency:** Intelligent production lines boost work efficiency through automated operations and continuous working capabilities, reducing errors and delays caused by human factors.
- **Reducing Labor Costs:** Automated operations decrease reliance on manual labor, lowering company expenses and enhancing the safety and stability of the production line.
- **Flexibility and Adaptability:** Intelligent production lines possess flexible task scheduling and operational path planning capabilities, enabling rapid adjustment of workflows based on production demands to accommodate various scenarios and task requirements.
- **Minimizing Material Waste:** Precise control of vehicles and optimized operational path planning reduce material loss during transportation, thereby enhancing production efficiency.
- **Enhancing Safety:** Intelligent production lines are equipped with safety systems and anti-collision sensors, ensuring the safety of vehicles and personnel during operations.
- **Automated Material Handling:** Intelligent production lines can automatically transport raw materials, semi-finished products, and finished goods between different areas within the factory.

Intelligent Path Planning: Smart production lines are equipped with path planning capabilities, enabling them to determine the most efficient routes based on production needs and environmental changes, avoid obstacles, and optimize the operational process.



**CUSTOMIZED PROFESSIONAL
PRODUCTION LINE**

Intelligent manufacturing logistics production line