

SMART AUTOMATED PARKING COMPREHENSIVE SOLUTION PROVIDER

Tada





WeChat official accou 微信公众号

Shandong Tada Auto Parking Co., LTD

ADD: Taida Industrial Zone, Gangcheng District, Jinan City, Shandong Province, China. Postcode:271129

TEL: +86-531-75879988 FAX: +86-531-75879911 24-hour customer service: +86-400-156-9928 International Trade: +86-531-75872017

Website: www.tadachina.com



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Headquarter office



1.1 COMPANY PROFILE

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Corporate Mission

Creating smart automated parking system for users Provide convenient parking services

Business philosophy

Quality is more important than Mount Tai Serves the whole world

Core values

Better city, better life, We add luster to smart cities. TADA is committed to becoming a leading provider of comprehensive smart automated parking solutions.

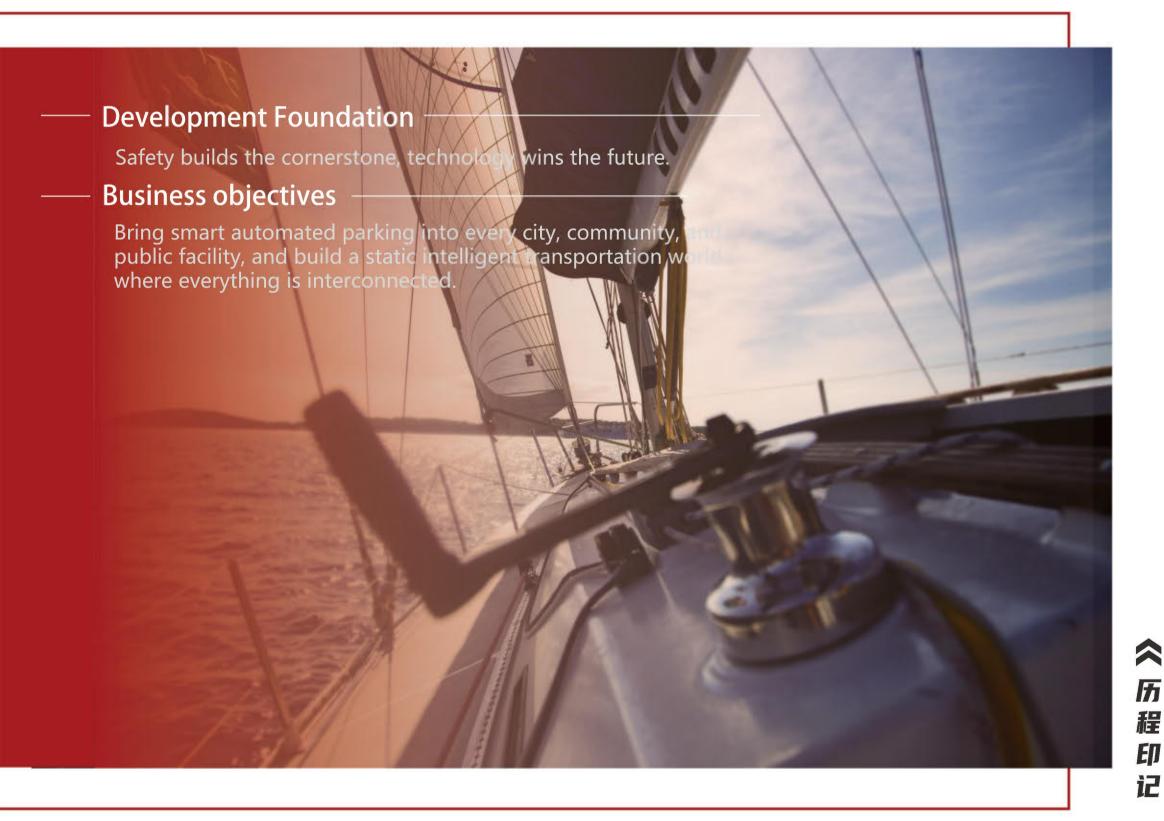
Founded in 2001, and with a registered capital of USD 30 million, Shandong Tada Auto Parking Co., LTD. is specialized in the research and development of automated mechanical parking system garage design, production and manufacturing, installation and after-sales service.

After more than 20 years of innovation and development, TADA automated parking system has gradually grown into a high-end full-automatic parking equipment supplier with a Swiss R&D center. The main mechanical parking equipment products cover more than 100 products in 7 categories. At present, the Company is actively promoting strategic transformation, building a collection of parking robots, intelligent parking equipment, automated parking system investment and operation of a number of smart city parking solution providers.





1.2 HISTORY AND PROSPECT





2020年

The company has built over 100,000 parking spaces and thousands of projects worldwide

2015年

Completed the world's largest single-unit project with a total of 10011 parking spaces

2013~2017年

The company has been awarded the top ten enterprises in the Mechanical Parking Industry.

▶ 2011、2012年

The company has been awarded the title of Excellent Enterprise in the Mechanical Parking Industry.

2010年

The company won the third prize of the National Ministry of Machinery Industry.

2006年

The company has won three consecutive sales championships in the Mechanical Parking Industry.

2005年

The company was the first to obtain a parking equipment manufacturing and installation license issued.

2004年

The company established a Swiss R&D center: ELECON ASIA SA

2003年

The company has passed the ISO9000 quality management system certification

♦ 2002年

Start construction of Taida Industrial Park.

● 2001年

The company held its establishment ceremony at the Xinxing Building of the Laigang Group.



3 QUALIFICATION AND HONOR

Qualification certificate









Business License

CERTIFICATE 知识产权管理体系认证证书 山东茱铜泰达车廊有限公司 整體的在同 (分本效备的效分、生产、安果、畅管; 从其在同 故外分支用涉及同知以产加等面 会議長 2000年12月36日 会議長 2000年12月3日 **●** ●=- (*)





9

副理事长单位



Intellectual Property Information Technology Measure Management



Occupational Health



Quality Management

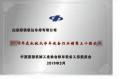


Environmental Management

Certificate of Honor



Top 10 Enterprises in the Parking Equipment Industry



Top 30 Sales Companies Vice Chairman Unit of in the Parking Equipment Industry Association Industry



Top 10 Overseas Sales Enterprises







High Technology Enterprises Top 10 Most Beautiful Garages AAA Credit Rating







Council Members



Trustworthy Enterprise

宁合同重信用企业

雅芝市工商行政管理局 莱夷市企业信用特会

- 李前秦达车库有限公司

Patent Certificate











JB

Participating Standards









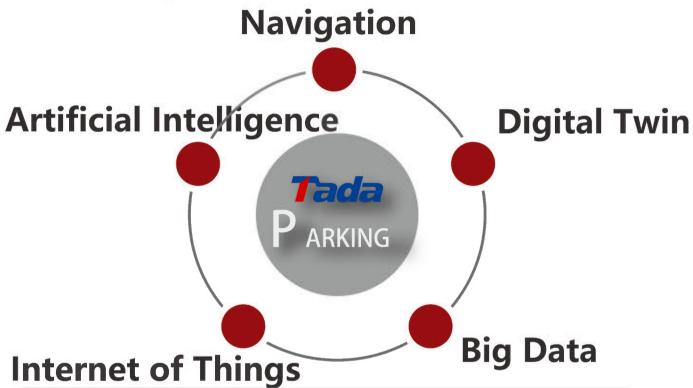






2.1 TECHNOLOGY EMPOWERMENT

TADA integrates navigation systems, digital twin technology, artificial intelligence, the Internet of Things, Big data, and other advanced technologies to build an intelligent parking system. Further, improve the quality and safety of automated parking products, and improve the efficiency of parking operation and maintenance management.



Intelligent Construction

Standardized parking equipment production and construction process, full process collaboration.

Intelligent **Operations**

Connect parking garages and user data, achieve human-vehicle flexible marketing strategies.

Intelligent **Maintenancel**

Safety management, space management, equipment management, personnel management, precise control, and collaboration, support work order management, and energy consumption management.

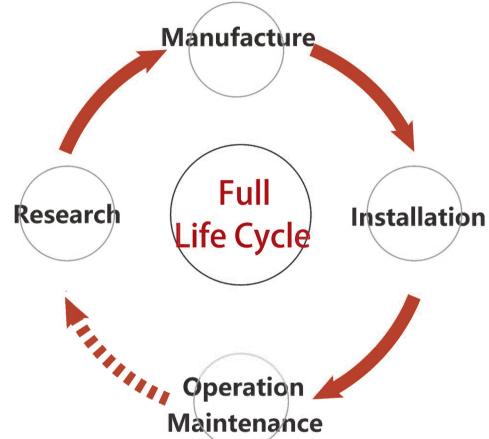
Intelligent Management

Summarize all data of operation, operation and maintenance, security, etc., analyze Big data, assist decision-making and mine data value

Globalization, Digitization, Automation, Intelligence, and Visualization

TADA

Committed to providing full lifecycle solutions for intelligent parking systems



An end-to-end solution that connects the entire lifecycle of the parking system and integrates business data across all projects.



2.2 BRAND VALUE

Resource Guarantee

Since its establishment, TADA has built over 1000 automated parking systems in China, with over 100000 parking spaces. Laigang Group is a large steel enterprise group with a comprehensive production capacity of over 10 million tons of steel per year, with an annual sales revenue of 60 billion yuan. TADA is a non-steel industry project targeted for development by Laigang Group. It actively responds to the group's century strategy of quickly expanding and strengthening and strives to create the "TADA" brand. The company has successively received honorary titles such as "Advanced Enterprise in the Parking Industry" and "Shandong Province Famous Brand Product".

Production Guarantee

TADA is a leading enterprise in the production of automated parking systems in China. It has invested nearly 30 million USD to build a modern Eco-industrial park covering an area of 300 mu and a plant area of 18000 square meters, with an annual output of 20000 parking spaces, and its production scale ranks first in the industry.

In order to produce first-class and high-quality products, the company spent a huge amount of money at the beginning of its establishment to purchase a large number of high-precision imported CNC equipment, such as CNC bending machines, CNC shearing machines, CNC turret punches, CNC three-dimensional drills, CNC plasma flame cutting machines, and twelve head large shot blasting and sandblasting machines (the only one in the industry that has overall rust removal after welding), equipped with internationally advanced production lines.

Special Instructions

The surface rust removal and anti-corrosion effect of steel structures are directly related to the service life and appearance effect of equipment. The overall rust removal of mechanical parking equipment parts, combined with brand paint and advanced painting technology, is far superior to acid pickling and manual ordinary spraying methods in terms of anti-corrosion effect and paint service life.





CNC Bending Machine



3D CNC Drilling Machine



CNC Turret Punch Machine



CNC Shearing Machine





Double-column Angle Band Saw Machine CNC Gantry Drilling Machine

Raw Material Guarantee

Laigang Group is the largest and most comprehensive production base for high-quality steel profiles in China, with hot-rolled H-beams being awarded the title of "China Famous Brand Product". The main raw material for the mechanical parking equipment is H-shaped steel. All H-beams used by TADA are exclusively supplied by Laigang Group with guaranteed quality raw materials.



2.3 INNOVATION

R&D Team

TADA is a key high-tech enterprise under the National Torch Program, with strong technical strength. It has the world's top intelligent parking technology and multiple parking patent technologies. At the same time, there is an independent overseas research and development center in Switzerland, with multiple world-class parking experts and completely independent intellectual property rights of high-end equipment such as a fully automated parking system. It is unique in intelligent parking technology and has always been at a leading level in the industry.

National Torch Program Key High-tech Enterprises

Experts

6 People

Senior Engineer

10 People

Engineer

30 People



Core Equipment

The comb type car handling robot technology is a leading fully automatic parking product and technology in the market.

In the history of the development of automated parking technology, it is the thinnest and safest comb-toothed car-handling robot. Its main advantage lies in its low center of gravity, automatic alignment, optimal performance, and leading performance in terms of running speed and space-saving.

Since the establishment of the Swiss R&D center, it has won the trust of customers in terms of its ability to innovate based on technology, as well as continuously improving performance and reliability. Although it has been eagerly imitated in recent years, it has never been surpassed.

Parking robot

The comb type car handling robot
The core components of a fully automatic parking system

Thin, lightweight, and powerful

Add a little force to achieve more Get everything ready











handle complicated matters with ease

It's not just about being big

High space utilization efficiency

Low failure rate Zero accident rate



2.4 PRIME SERVICE

Building a parking system

for customer satisfaction service





The company is committed to continuously improving user satisfaction and has established a comprehensive after-sales service system and a professional after-sales service team.

The company has established and improved the "Maintenance Management Regulations", and formulated maintenance manuals, and all maintenance personnel are certified to work.

In order to fully protect the interests of the majority of users and resolute their concerns, the company has purchased a parking system product liability insurance.

AFTER-SALES SERVICE

- Provide operation and safety training to users
- Regular inspection and maintenance
 Technical consulting services
- Emergency fault handling

Targeted repairs

- Garage entrusted management
- CRM integration with the operation and maintenance system to achieve online repair reporting

24 HOURS

The company has an after-sales service management system and a dedicated 24-hour after-sales service hotline to handle complaints within 24 hours.

Service Commitment

ONE YEAR

The equipment warranty period is one year, and any vulnerable parts that occur during the warranty period due to maintenance are free of charge. 100000+

Our after-sales service department is responsible for providing after-sales service for over 100000 parking spaces and has won user praise. The company has established a management system for user dissatisfaction and complaints, as well as a user evaluation system, to gradually improve the quality of after-sales service and achieve good results.

Pre-sales design services



- Design concepts
- Landmark buildings
- Internet-famous site

Design



- Historical culture
- Residential culture
- Business culture
- Science & technology culture

- Integration with businesses
- Convenient user life
- Enhance owner benefits

TADA provides integrated design services, empowering the integration of smart parking projects with surrounding cultures and bringing them closer to the lives of surrounding people. Various unique new landmarks will also emerge. While providing convenience for the urban environment and public life, we will cooperate with fee management systems, APP mini-programs, etc. to provide various value-added services and facilitate users. It can increase user stickiness.

Early warning services

□ Real-time monitoring and warning

Through the Internet of Things technology, the parking equipment is monitored uniformly and the operating status of the equipment is monitored in real-time 24 hours a day. When an alarm occurs, it will be automatically triggered through on-site messaging, email, mobile SMS, and linked alarm devices

□ Proactive equipment maintenance

Through Big data technology, an equipment early warning analysis model is established to predict and analyze real-time data, warn of equipment failures in advance, carry out equipment maintenance in advance. realize active equipment maintenance, and improveuser satisfaction.

□ Remote control of equipment

Based on Big data analysis, through the analysis of monitoring data, automatically configure equipment parameters to achieve intelligent control of equipment.





Multiple products Intimate service

More than 100 kinds of products provide customers with the most flexible solution & the most considerate service.









3.1 Parking equipments

- PPY Model (Sliding elevator)
- PXD Model (Trans elevator)
- PCS Model (Vertical lifting)
- PSH Model (Puzzle parking)
- PJS Model (Stack parking)
- PCX Model (Rotary carousel)
- AGV Model



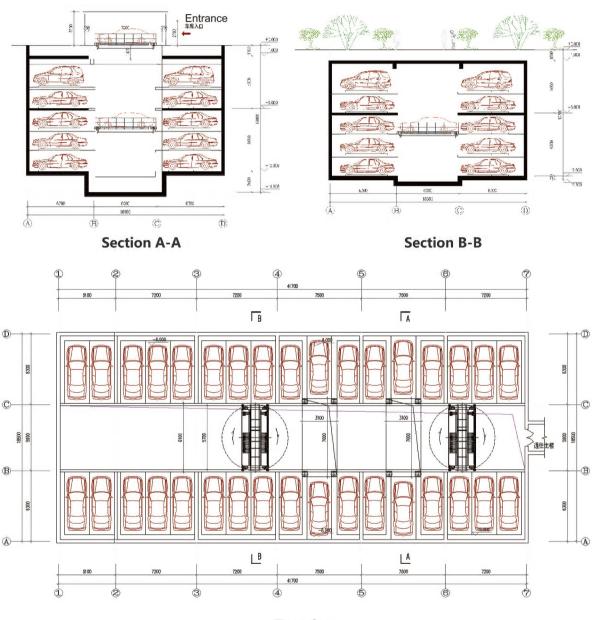
SLIDING ELEVATOR

Scan QR code Watch video



Equipment Engineering sketch Drawing

PPY MODEL AUTOMATED PARKING SYSTEM



Top view

Equipment features

The PPY model automated parking system adopts no platform handover technology, with low requirements for floor height, high parking density, high automation, and high efficiency in car storage and retrieval, and is safe and reliable. It has an automatic centering device that can rotate during operation. Usually divided into single-layer horizontal movement, single-layer (or multi-layer) horizontal movement, suitable for building above ground, underground, or a combination of above-ground and underground parking systems. It is mainly used in large garages or parking lots.

Equipment composition

PPY model automated parking system mainly consists of steel rails, elevators, shuttles, car carriers (trolley robots), parking frames, rotating pallets (automatic turning), entrance and exit systems, detection devices, safety devices, intelligent frequency conversion control systems, monitoring, and parking fee management systems.







Equipment Model	PPY	
Entry and Exit Methods	Forward entry and forward exit	
Vehicle Model	Sedan	SUV
	L ≤5300	≤5300
Dimensions (mm)	W ≤1900	≤1900
	H ≤1550	≤2050
Weight (Kg)	≤2350	≤2350
Rated Lifting Speed (m/min)	Elevators below 10 floors ≤60 , 10~14F≤75 , UP 15F≤90	
Rated Speed of Shuttle (m/min)	≤60	
Rated Speed of Robots (m/min)	≤45	
Average Storage and Pick-up Time (s)	≤120	
Noise (Decibels)	When the equipment is running t in the garage , ≤65	
Operating Mode	Swipe card / Touch screen	
Exchange Method	Comb	
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)	
Power Supply	3 Phase 5 Line	
Illumination	Follow the local power supply	
Safety Devices	Photoelectric Switch INTER LOCK	



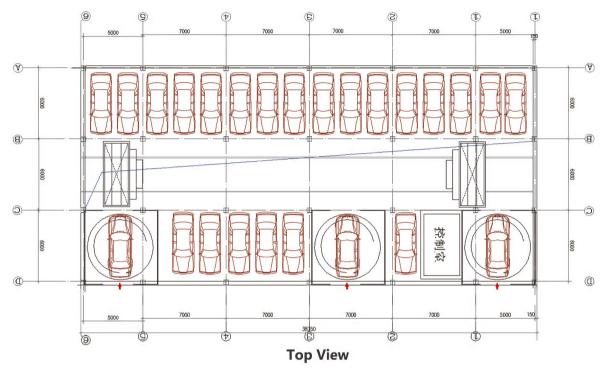
TRANS ELEVATOR

PXD MODEL AUTOMATED PARKING SYSTEM

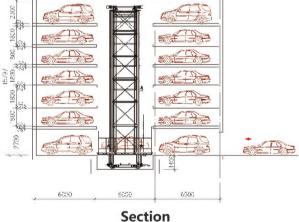
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Equipment Engineering Sketch Drawing





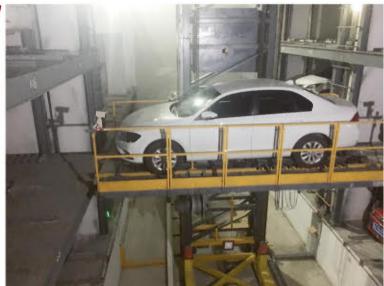


Equipment features

The PXD model automated parking system adopts no platform handover technology and uses the PARKROBOT parking robot conveyor, with low floor height requirements and high technical content and intelligence. It has an automatic centering device, which is safe, reliable, highly automated, and has high efficiency in accessing and retrieving vehicles. Depending on the site, it can be installed outdoors (usually in a fully enclosed form), indoors, above ground, or underground. Usually, it is more suitable for a rail stacker and transporter to handle vehicles between 50 and 100 vehicles. According to the specific usage area of different garages, it is usually appropriate to choose around five floors.

Equipment Composition

PXD model automated parking system mainly consists of guide rails, stackers, parking robots, parking frames, rotating pallets (automatic turning), entrance and exit systems, detection devices, safety devices, intelligent frequency control systems, monitoring, and parking fee management systems.



Equipment Model	PXD	
Entry and Exit Methods	Forward entry and forward exit	
Vehicle Model	Sendan	SUV
	L ≤5300	≤5300
Dimensions (mm)	W ≤1900	≤1900
	H ≤1550	≤2050
Weight (Kg)	≤2350	≤2350
Rated Lifting Speed (m/min)	Elevator 2Floors ≤30 , Up 3F ≤45	
Rated Speed of Shuttle (m/min)	≤60	
Rated Speed of Robots (m/min)	≤45	
Average Storage and Pick-up Time (s)	≤120	
Noise(Decibels)	When the equipment is running in the garage, ≤65	
Operating Mode	Swipe card / Touch screen	
Exchange Method	Comb	
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)	
Power Supply	3 Phase 5 Line	
Illumination	Follow the local power supply	
Safety Devices	Photoelectric Switch INTER LOCK	



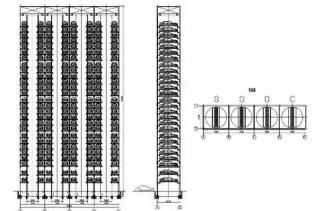
■ VERTICAL LIFTING TOWER PARKING

Scan QR code



STANDARD PCS MODEL AUTOMATED PARKING SYSTEM

Equipment Engineering Sketch Drawing



Equipment features

The PCS model standard automated parking system generally consists of two parking spaces on one level and can be built up to 25 floors. The vehicle capacity is about 50 units, with a height of about 50 meters, and 40 units with a height of about 36 meters. It has the smallest floor area, the highest land use efficiency, low vibration, and low noise. This model suits high-rise office buildings, residential buildings, hospitals, and comprehensive commercial buildings.

Equipment composition

This model tower parking system adopts platform exchange car switching technology, which is mainly composed of steel structure, platform, vertical elevator, access switching device (friction wheel drive), entrance and exit detection system and Automatic door, intelligent frequency conversion control system, monitoring, and parking charge management system.

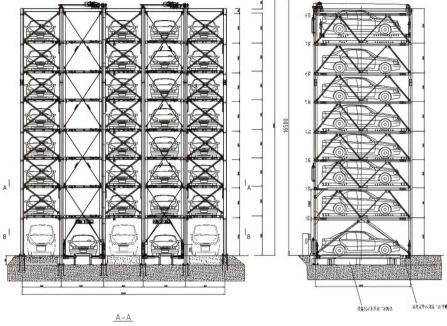


Equipment parameters

Equipment Model	PCS STANDARD	
Vehicle Dimensions (mm)	≤5300×1900×1550/2050 LXWXH (mm)	
Number of parking floors	25F	
Vehicle Entry & Exit	Ground Floor	
Parking spaces	50 Units	
Parking method	Lateral parking on the side	
Entry and Exit Methods	Forward entry and forward exit	
Lifting Speed	Max 2meters/second	
Rotating Speed	2 r/min	
Average Storage and Pick-up Time (s)	90 seconds	
Lifting motor power	Max 37KW	
Sliding motor power	1.5KW	
Rated Power	45KW	
Starting Current	250A (3 Seconds)	
Power Supply	3 Phase 5 Line	
Power consumption for storage and pick-up	0.4KWh (per storage and Pick-up)	

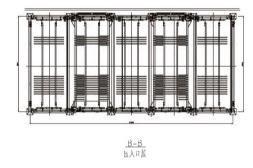
COMB EXCHANGE PCS MODEL AUTOMATED PARKING SYSTEM

Equipment Engineering Sketch Drawing









Equipment Model	PCS COMB EXCHANGE	
Parking spaces	33 Units	
Vehicle Model	Sedan & SUV	
Vehicle Dimensions	5000×1850×1550(2050)mm	
Weight	1700(Kg)	
Average Storage and Pick-up Time (s)	120(S)	
Lifting Speed & Power	Max. 40m/min 11KW	
Sliding Speed & Power	6. 8m/min 0. 2KW	
Lifting Method	4 Sleeve roller chain	
Controlling Method	PLC	
Operating Mode	Swipe card / Touch screen	
Power Supply	3 Phase 5 Line	
Power Capacity	15KVA	



VERTICAL LIFTING TOWER PARKING

Scan QR code



BIG PLATFORM PCS MODEL AUTOMATED PARKING SYSTEM

Equipment Engineering Sketch Drawing

Section View Top View

Equipment composition

This model mainly consists of a steel structure, large platform elevator, car carrier (parking robot), parking frame, entrance and exit system, detection device, safety device, intelligent variable frequency control system, monitoring, and parking fee management system.

Equipment features

This model adopts parking robot technology. It has an automatic centering device that can rotate during operation. This type of parking system adopts a rectangular tower steel structure frame, with a straight-in and straight-out access method, multiple entrances and exits, and multiple access channels. It uses a mobile app to book and access vehicles.



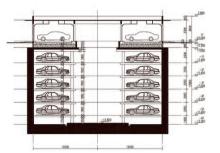


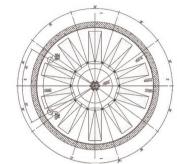
Equipment parameters

Equipment Model	BIG PLATFORM PCS	
Entry and Exit Methods	Forward entry and forward exit	
Parking spaces		
Vehicle Dimensions (mm)	≤5300×1900×1550/2050 LXWXH (mm)	
Weight (Kg)	≤2350	
Elevator Lifting Rated Speed (m/min)	≤90	
Shuttle Sliding Rated Speed (m/min)	≤60	
Robot Rated Speed (m/min)	≤45	
Average Storage and Pick-up Time (s)	≤120	
Noise(Decibels)	When the equipment is running in the garage,≤65	
Operating Mode	Swipe card / Touch screen	
Exchange Method	Comb	
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)	
Power Supply	3 Phase 5 Line	
Illumination	Follow the local power supply	
Safety Devices	Photoelectric Switch INTER LOCK	

ROUND PCS MODEL AUTOMATED PARKING SYSTEM

Equipment Engineering Sketch Drawing





Section View

Top View

Equipment features

This model adopts parking robot technology. This parking system fully utilizes parking space, with high parking density, safety, availability, a high degree of automation, and high efficiency in accessing and retrieving vehicles. It has an automatic centering device that can rotate during operation. Suitable for constructing fully automated parking systems that combine above-ground, underground, or above-ground.

Equipment composition

This model mainly consists of a steel structure, lifting rotating platform, parking robot, parking frame, entrance and exit system, detection device, safety device, intelligent variable frequency control system, monitoring system, and parking fee management system.





Equipment Model	ROUND PCS	
Entry and Exit Methods	Forward entry and forward exit	
Vehicle Dimensions (mm)	≤5300×1900×1550/2050 LXWXH (mm)	
Weight (Kg)	≤2350	
Lifting Speed (m/min)	≤75	
Rotating Speed (r/min)	2.5 r/min	
Robot Rated Speed (m/min)	≤45	
Average Storage and Pick-up Time (s)	≤100	
Noise(Decibels)	When the equipment is running in the garage, ≤65	
Operating Mode	Swipe card / Touch screen	
Exchange Method	Comb	
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)	
Power Supply	3 Phase 5 Line	
Illumination	Follow the local power supply	
Safety Devices	Photoelectric Switch INTER LOCK	



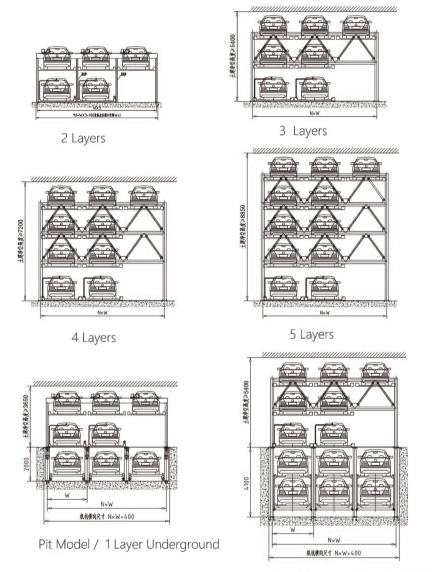
LIFT-SLIDING

PSH MODEL PUZZLE PARKING SYSTEM

Scan QR code Watch video



Equipment Engineering Sketch Drawing



Pit Model / 2 Layers Underground

Equipment features

The puzzle parking system is a parking solution that uses the lifting or sliding of the platform to store vehicles. Its scale can be large or small, and it can be arbitrarily combined and arranged according to different terrains and spaces. It has a high space utilization rate, safe and reliable equipment, fast access to vehicles, and easy use and maintenance. Therefore, it is a multi-layer mechanical parking solution with a small footprint and low construction cost.

Equipment composition

The puzzle parking system mainly consists of a steel structure part, a platform, a lifting system, a sliding system, a transmission part, a safety protection system, and a PLC fully automatic control system. This equipment can be built with 8 floors above ground, 3 floors underground, or a combination of above ground and underground.







Equipment Model	PSH			
Entry and Exit Methods	Back entry and forward exit			
Vehicles Model	D	D T K		
	L 5000	5300	5000	
Vehicle Dimensions (mm)	W 1850	1900	1850	
	H 1550	1550	2050	
Weight (Kg)	1700	2350	1850	
Lifting Rated Speed (m/min)	4.0~6.0			
Sliding Rated Speed (m/min)	8.0			
Driving method	Underground : Motor Driven + Chain			
Driving method	Above the Ground: Motor Driven, rope hoisting		n , rope hoisting	
Noise(Decibels)	When the equipment is running in the garage , ≤65			
Operating Mode	Swipe card / Push button			
Average Storage and Pick-up Time (s)	≤120 S			
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)			
Power Supply	3 Phase 5 Line			
Illumination	Follow the local power supply			
Safety Devices	Photoelectric Switch INTER LOCK			



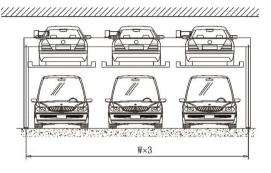
PARKING LIFT

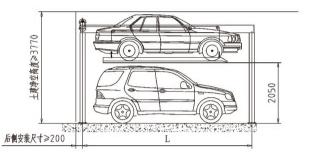
PARKING LIFT Scan QR code Watch video PJS MODEL STACK PARKING SYSTEM



Equipment Engineering Sketch Drawing

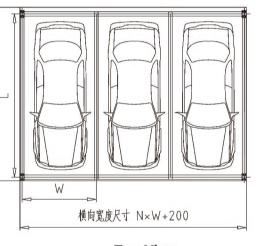
■ 4-Post Type





Front View

View

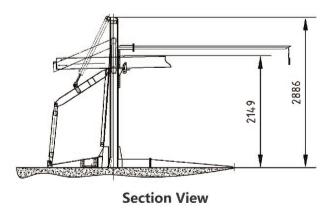


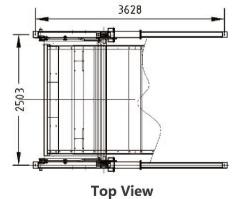
Section View

Top View

■ 2-Post Type

前后安装尺寸 L+400





Equipment features

This car stacker is a mechanical parking equipment that uses a platform lift and doubles the number of parking spaces. This type of parking equipment has a simple and compact structure, button control, and simple and fast operation. The driving method can be divided into two types: motor-driven and hydraulic-driven. It can be divided into two categories: 2-post & 4-post. It can be divided into double stack, triple stacker, and quad stacker according to the number of layers,

Equipment composition

The car stacker is mainly composed of a steel structure, vehicle loading plate, lifting system, transmission part, electrical system, safety device, hydraulic-driven system, or motor-driven system.



Equipment Model	PJS		
Entry and Exit Methods	Back entry and forward exit		
Vehicles Model	D	Т	K
	L 5000	5300	5000
Vehicle Dimensions (mm)	W 1850	1900	1850
	H 1550	1550	2050
Weight (Kg)	1700	2350	1850
Lifting Rated Speed (m/min)	≤4.0		
Driving method	Hydraulic-driven or motor-driven		
Operating Mode	Push button		
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)		
Power Supply	3 Phase 5 Line		
Illumination	Follow the local power supply		
Safety Devices	Photoelectric Switch INTER LOCK		



CAROUSEL ROTARY

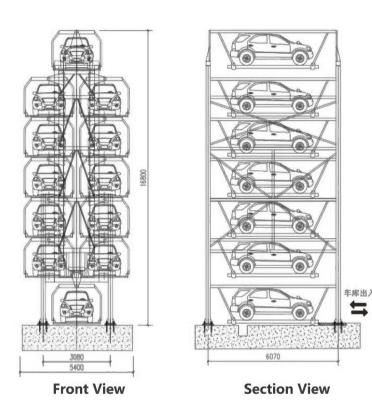
PCX MODEL ROTARY PARKING SYSTEM

Scan QR code Watch video

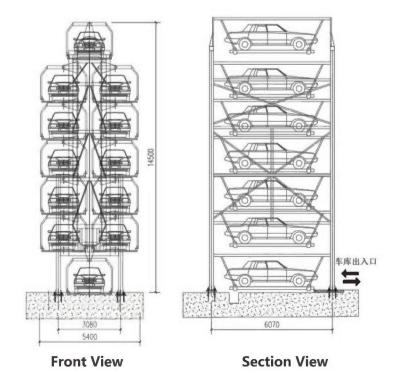


Equipment Engineering Sketch Drawing

■ SUV



■ Sedan



Equipment features

PCX rotary parking system is a mechanical parking equipment that uses a vertical circulation parking system to access parked vehicles. There are mainly combinations of 8 parking spaces, 10 parking spaces, 12 parking spaces, 16 parking spaces, etc. This parking equipment is divided into two types: independent and built-in. The stand-alone type is an independently constructed parking garage, built-in type is built inside the main building.





Equipment Model	PCX		
Entry and Exit Methods	Back entry and forward exit		
Vehicles Model	Sedan SUV		
	≤5300	≤5300	
Vehicle Dimensions (mm)	≤1850	≤1950	
	≤1550	≤2050	
Weight (Kg)	≤2200 ≤2300		
Lifting Rated Speed (m/min)	3.8~12		
Average Storage and Pick-up Time (s)	≤120		
Noise(Decibels)	When the equipment is running in the garage , ≤65		
Operating Mode	Swipe card / Push button		
Driving method	Motor Driven + Chain		
Lifetime (Year)	≤50 (Excluding mandatory replacements required by relevant laws)		
Power Supply	3 Phase 5 Line		
Illumination	Follow the local power supply		
Safety factor	Drive chain With 7 times Factor of safety		

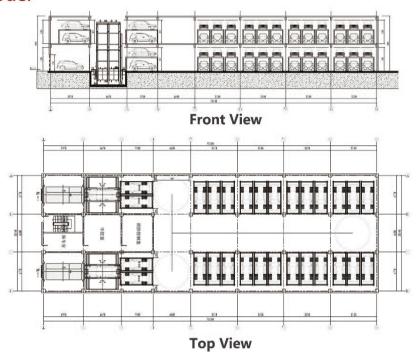


AUTOMATED GUIDE VEHICLE

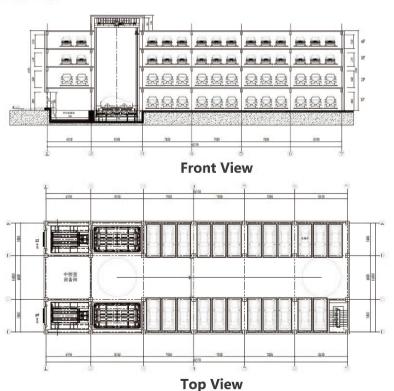
AGV MODEL AUTOMATED PARKING SYSTEM

Equipment Engineering Sketch Drawing

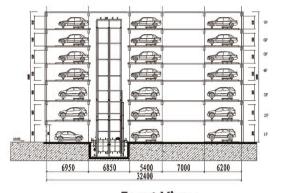
■ Pallet Model

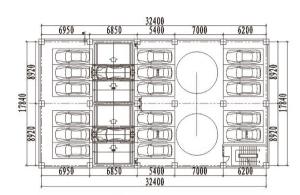


■ Lifting Model



■ Comb Model





Front View

Top View

Equipment features

The AGV parking system adopts a design concept of serialization, integration, generalization, and modularization. Through adaptive suspension and multi-drive control algorithms, the mobile platform has the characteristics of a low loading surface, large load capacity, fast speed, and flexible movement posture, suitable for the flat transportation of vehicles. The charging method of AGV parking equipment is online automatic charging, and the guidance methods can use laser guidance, electromagnetic guidance, etc.



Equipment Model	AGV	
Guidance method	Mix guidance	
Walking function	Forward, backward, side-shift, rotate	
Rated loading	0~3500kg	
Running speed	Max60~90m/min	
Lifting Height	0~2500mm	
Actuator	Electric servo lifting	
Parking accuracy	±5mm	
Power supply configuration	High magnification maintenance-free lithium battery, contactless power supply	



3.2 INTELLIGENT CONSTRUCTION MANAGEMENT SYSTEM

Digital Smart Factory

TADA has established a digital smart factory that digitally manages all aspects of design, production, transportation, installation, delivery, operation, and maintenance. The order processing information and progress from the factory end, real-time operation and maintenance data from the client end, and maintenance record logs can be monitored and queried in real time through software and apps.





Collaborative Management Platform

In the digital age, the essence of organizational efficiency is collaboration. The project collaborative management platform reshapes project organizational boundaries, collaborates with internal and external resources of the enterprise, empowers project participants, improves project construction efficiency, and enhances customer experience, achieving organizational, communication, collaboration, business, and ecological online project management.



■ Features



All personnel coverage





Project Manager, Technical Manager,, Commercial Manager, Procurement Manager, Construction Manager, Commissioning Manager, Progress Control Engineer, Quality Safety engineer, Cost Control Engineer, Document Control Engineer



3.3 INTELLIGENT MANAGEMENT SYSTEM

Based on the Internet of Things, digital twins, sensors, and other technologies, realize the collection and convergence of parking lot full data, including construction, operation and maintenance, operation, safety, and other data, and form Big data. Big data integration can provide support for parking operation and maintenance, operation, safety, emergency, and other management decisions. At the same time, through Big data mining, it will better serve the intelligent management of parking lots, and eventually form data assets.

Big data integration



Big data application

■ Urban parking management

Based on the high-precision map, parking lot management within the city can be realized, and the distribution of parking lots within the city can be visually displayed using the map. Through Big data analysis and statistics, the operation and management of the overall urban parking lot can be centrally displayed in the management cockpit, providing Big data support for the management and decision-making of urban parking lots.





■ Urban parking management

For a single parking lot, visual parking management is carried out based on digital twins, and combined with statistical analysis of operation data, Big data support is provided for parking lot management and decision-making.





3.4 INTELLIGENT OPERATION SYSTEM

Single parking lot operation





Difficulty in entry and exit

Low efficiency and easy congestion



Difficulty in parkingNo parking guidance, unable to find a parking space



Difficulty in finding a car

Lack of equipment to assist in finding vehicles



Difficulty in charging

Manual work is slow, prone to errors, and congestion

INTELLIGENT OPERATION SYSTEM Solute pain points in solving parking problems

Information query service

Vehicle positioning and navigation

Guide Service

Parking guidance signs

Self-Service payment

Mobile payment

Vehicle search service

Parking location search

Whole network parking lot operation

Interact with various forms of information, connect all national parking lot data and user data, conduct precise analysis of user behavior, improve user experience, and achieve maximum economic value.









analysis

User behavior Optimization billing strategy

Analyze business combination User Experience

Improve

Extended value-added services

By utilizing a unified operation platform, we can use information technology to provide services to customers, provide innovative management for managers, and also explore more good profit models.

- **Profit Model**
- **Automotive Industry-Related Services**
- **Partner Benefits**
- Advertising revenue

- **Parking revenue**
- **Accurate customer marketing**
- Flexible settings

Operational System Value

Precision marketing

Data driven

More value added

Flexible Billing





Operation Visualization



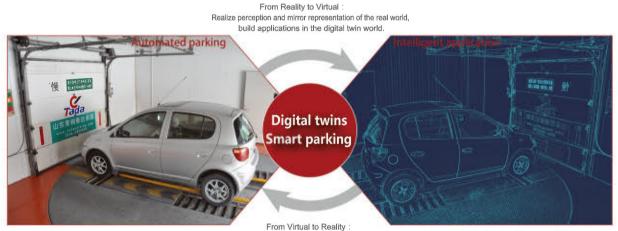
Good user experience



3.5 INTELLIGENT DEVOPS

Digital twins garage

The digital twins is a simulation process that fully utilizes data such as physical models, sensor updates, and operational history, integrates multiple disciplines, physical quantities, scales, and probabilities, and completes mapping in the digital virtual space to reflect the entire lifecycle process of corresponding physical entities.

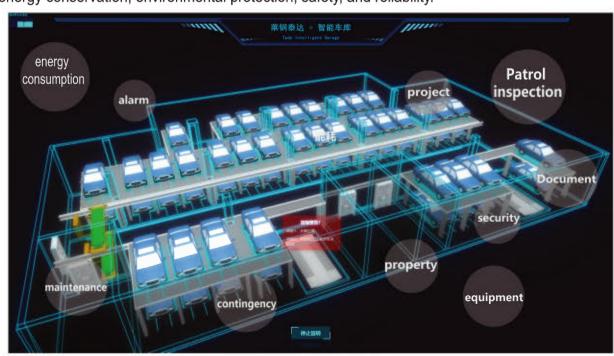


Reality parking system

Realize comprehensive monitoring, orderly management intelligent control of the real world through the digital twin world

Digital twins parking system

TADA is based on digital twin technology to achieve the operation and maintenance management of the entire lifecycle of garage equipment; Information security process closed-loop control, real-time data collection of equipment, energy consumption, and security, achieving proactive health management. At the same time, the analysis data is displayed interactively with the 3D model, so that the three-dimensional garage operation and maintenance system has integrated, interactive, and dynamic intelligent management characteristics, ultimately achieving the goal of accurate control, energy conservation, environmental protection, safety, and reliability.



Proactive device management







BEFORE FAULT

Establish a fault warning system, monitor equipment in real time, and build a knowledge system around the entire lifecycle of the equipment. Through precise data analysis, support the precise satisfaction of equipment replacement and maintenance.

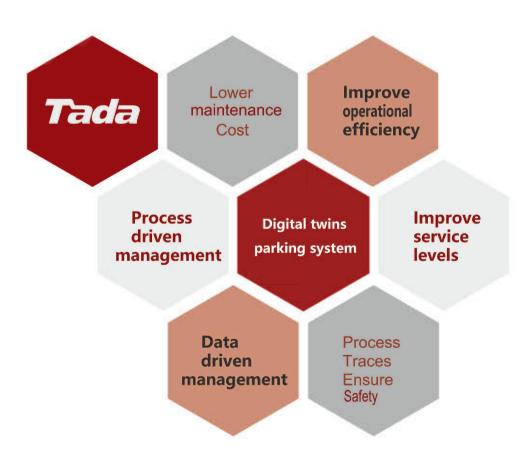
FAULT

By analyzing the history of equipment failures, assisting operation and maintenance personnel in diagnosing faults, and making decisions through deep learning and inference engines.

AFTER FAULT

Through the accumulation of various business data related to equipment failures, data assets are formed to provide strong data support for subsequent equipment maintenance and fault handling.

Value & benifit





3.6 INTELLIGENT CHARGING

With the development of the new energy vehicle industry, new energy vehicles and pure electric vehicles have achieved rapid development and a large number of applications. The demand for supporting service facilities for electric vehicles, especially convenient charging devices, is increasingly prominent. The combination of parking and charging functions in a parking system not only solves the problem of difficult parking but also solves the problem of charging. The use of PARKROBOT integrated charging and parking exchange technology can achieve automatic parking and charging.

Work principle











DISTRIBUTION SYSTEM

CHARGING SYSTEM

MONITOR PLATFORM





Smart charging parking system



Technical advantages



High degree of intelligence

With the help of advanced intelligent platforms, make the parking system more intelligent.



High level of informatization

The integration of intelligent machinery and the internet makes intelligent charging garages with internet attributes, enabling remote control of parking, pick-up, and charging management through mobile terminals.



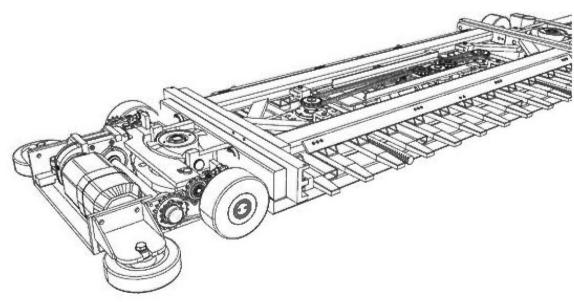
Advanced Vehicle Exchange Technology

Using an intelligent parking robot, the parking exchange technology is internationally leading and can be automatically plugged in.



Unmanned parking management

The intelligent charging garage makes parking, picking up, and charging management simple, achieving one-click operation, and the garage operation can be unmanned.





3.7 TRANSPORT INTEGRATION SYSTEM

Fork AGV series











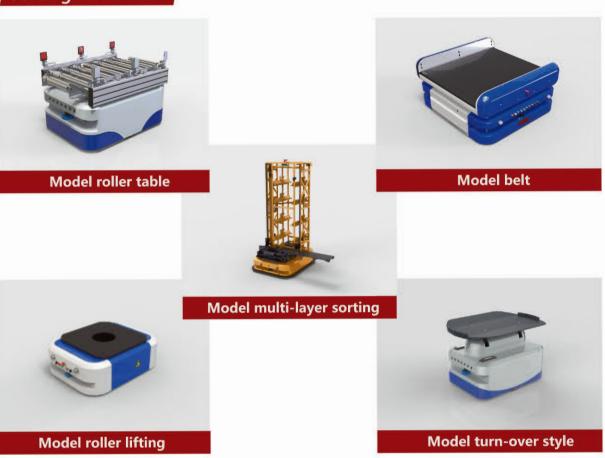




The fork AGV series mainly includes a low fork, rear fork, high-level forward shift, three-way fork, balance weight, and straddle type models. At the same time, customized designs can be made for the vehicle body, load capacity, lifting height, charging method, etc. based on material properties, process properties, and industry characteristics. The main technical parameters range is as follows

Model	Fork AGV series
Guidance method	Laser navigation, hybrid guidance, electromagnetic guidance
Walking function	Forward, backward, side-shift, spin (partial)
Rated load	0~6000kg
Speed	Max60~120m/min
Lifting height	0~10m
Lifting mechanism	Hydraulic
Stop accuracy	±5mm
Power supply	Ultra high-rate cadmium free nickel batteries, maintenance-free lead-acid batteries, lithium batteries

Sorting AGV series

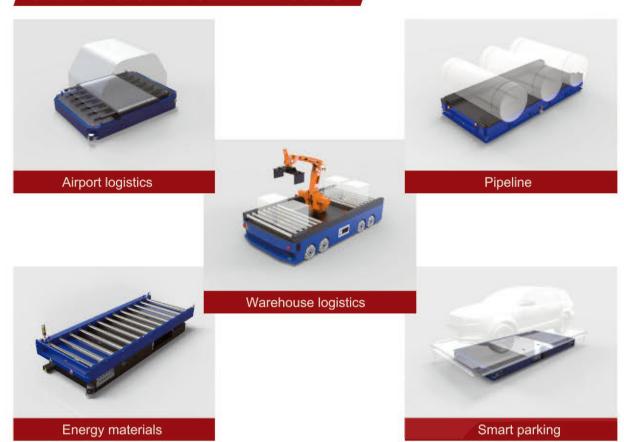


Model sorting AGV is suitable for large flow centralized sorting and handling of AGV series, which has formed four load series of 200kg/500kg/1000kg/1500kg. The transfer methods include track type, flip plate type, belt type, lifting type, composite type, multi-layer sorting type, etc. It is widely used in e-commerce, express delivery, cargo-to-person picking, and automatic material handling in the workshop.

Model	Sorting AGV series	
Guidance method	Characterized by grid paths	
Walk function	Forward, turn, spin	
Rated load	0~1000kg	
Speed	Max60~180m/min	
Dispatch quantity	1~1000台	
Actuator	Flipping board, belt, customized	
Stop accuracy	±5mm	
Power supply	Lithium battery	



Omnidirectional mobile AGV series



The omnidirectional mobile AGV series is a flat transportation platform that adopts a design concept of serialization, integration, generalization, and modularization. Through adaptive suspension and multi-drive control algorithms, it is suitable for flat transportation of large materials, multi-vehicle collaborative linkage, and heavy assembly production lines. This series of mobile platforms have low cargo carrying capacity, large carrying capacity, fast speed, and flexible movement posture, suitable for airport baggage rapid transit, intelligent parking systems, tobacco aging warehouses, military material warehouses, etc., especially in large-scale high-density storage and handling scenarios.

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Model	Omnidirectional mobile AGV series	
Guidance method	Laser navigation, hybrid guidance, electromagnetic guidance	
Walking function	Forward, backward, turn, spin, translation	
Rate load	0~20000kg	
Walking speed	Max60~90m/min	
actuator	Rail type, electric jacking, scissor-type lifting, customized fixtures	
Stop accuracy	±2mm~±2cm	
Power supply	Ultra high-rate cadmium free nickel batteries, maintenance-free lead-acid batteries, lithium batteries	

Customized AGV series



Model pipeline











Model push-pull





Model PRT Rapid Transit

The customized AGV series can provide personalized non-standard AGVs for users in different industries through different guidance methods, execution mechanisms, driving methods, and charging methods.

Model	Customized AGV series
Guidance method	Laser navigation, hybrid guidance, electromagnetic guidance
Walking function	Forward, backward, turn, spin, translation
Rated load	0~6000kg
Speed	Indoor: Max60~90m/min Outdoor: Max30km/h
Actuator	Push-pull, rail, electric jack, scissor lift, customized fixture
Stop accuracy	Indoor: ±5mm Outdoor: ±5cm
Power supply	Ultra high-rate cadmium free nickel batteries, maintenance-free lead-acid batteries, lithium batteries



3.8 NAVIGATION SYSTEM + SMART PARKING

Based on the original full-scene smart parking scheme, TADA introduces navigation technology, devotes itself to the business expansion and docking of smart city, smart parking construction and development, and other fields, assists in the construction of New Infrastructure, and creates a new benchmark for smart city



High-precision electronic map of parking spaces



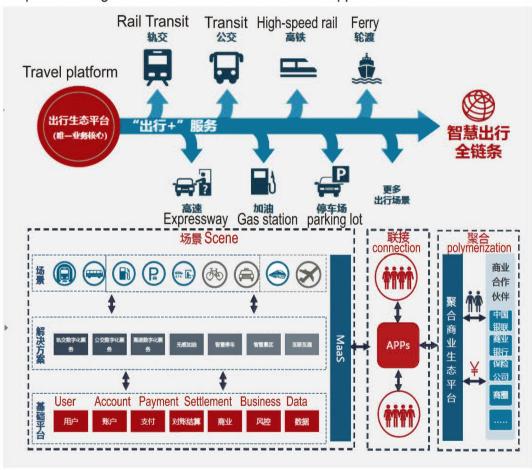
Decimeter-level high-precision positioning



- □ Real-time parking space information query
- □ Parking space reservation and intelligent matching
- □ Parking space navigation, location finding, and car searching
- Online payment for senseless parking
- □ Intelligent Charging station guidance
- ☐ Provide users with the ultimate parking service experience
- □ Breaking the Asymmetric Information of Parking Spaces
- Maximize the efficiency of parking space and Charging station
- □ Solve parking difficulties and increase urban traffic flow rate by 20%

Smart City One Code Access

Based on the high-precision positioning technology, we will build citizen service mobile applications (such as apps) to provide citizens with precise public transportation internet services such as rides, parking, and charging. The citizen service mobile application covers basic public transportation services such as QR code riding, bus route inquiry, virtual ticket card usage and management, vehicle rental, parking, etc. With the iteration of system construction and the integration of more businesses and users, citizens can enjoy the full range of business services of public transportation enterprises through the use of citizen service mobile applications.



New Economy Digital Ecology

Take smart parking as the integration platform of industrial chain resources, and empower the industrial economic complex in an all-around way. Through the combination mode of "New Infrastructure+smart parking+industrial investment+smart town", cultivate the industrial economic belt according to local conditions, create new urban clusters, and achieve "building a system, prospering a city, and driving the development of urban intelligent industrialization in a region"

Tada

4.1 SUCCESSFUL CASE

Quad / Triple / Double stack parking system & Puzzle parking system U.S.A















Puzzel parking system Canada





Double stack parking system

Austrialia





Triple stack parking system Austrialia

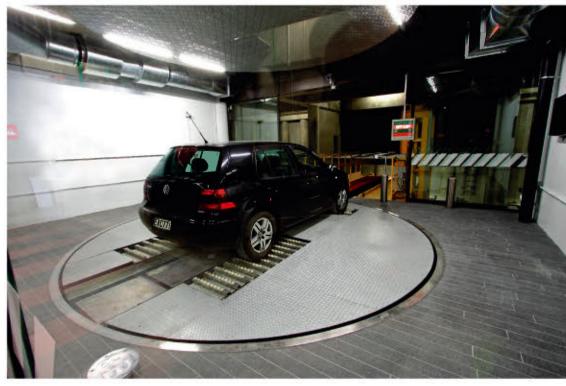


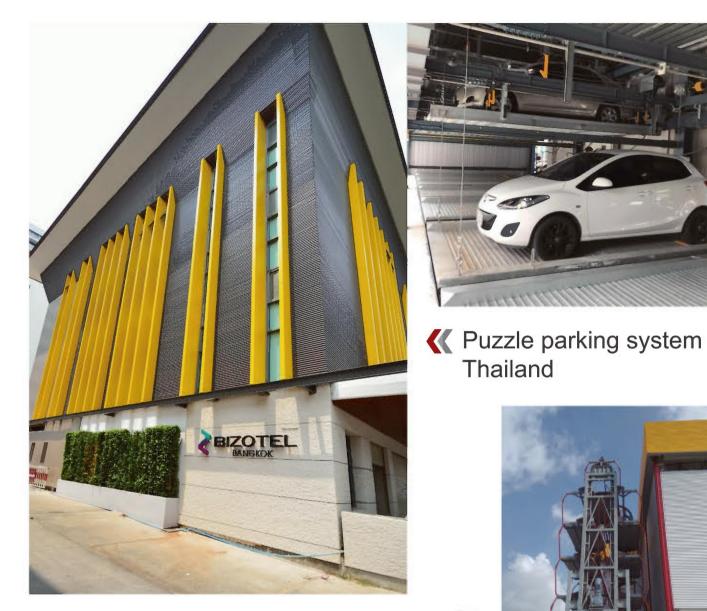


4.2 SUCCESSFUL CASE

Automated parking system Newzealand













Puzzle parking system Oman







Thailand