



**OMEGA**  
ENGINEERING

# MECHANIZED CAR PARKING SYSTEM

## Product Catalogue

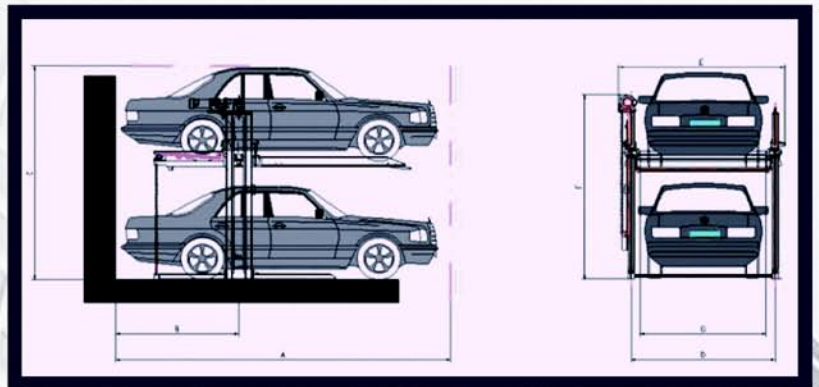
- **STACK PARKING**
- **PUZZLE PARKING**
- **TOWER PARKING**
- **FULLY AUTOMATED PARKING SYSTEM**



# TWO LEVEL SIMPLE STACK PARKING EQUIPMENT

## Operating Principle:

This is two level design parking system, parking space on ground level can park/retrieve can directly. When parking/retrieve car on second level, the car on ground level need to be driven out



## Features:

- Save land area and take full use of space, columns can be arranged according to your requirements and the system could be electromechanical or hydraulic power pack operated.
- Low equipment cost and maintenance cost. Simple mechanism for smooth and noise free vertical lifting operation, convenient for easy parking
- Comprehensive security protection system, such as safety anti-falling hook and emergency brake mechanism. Adopt the control system with button and remote control, make operation very easy.

**Most suitable Application: Enterprise and public institutions, residential area**

# HYDRAULIC TILTING PARKING EQUIPMENT

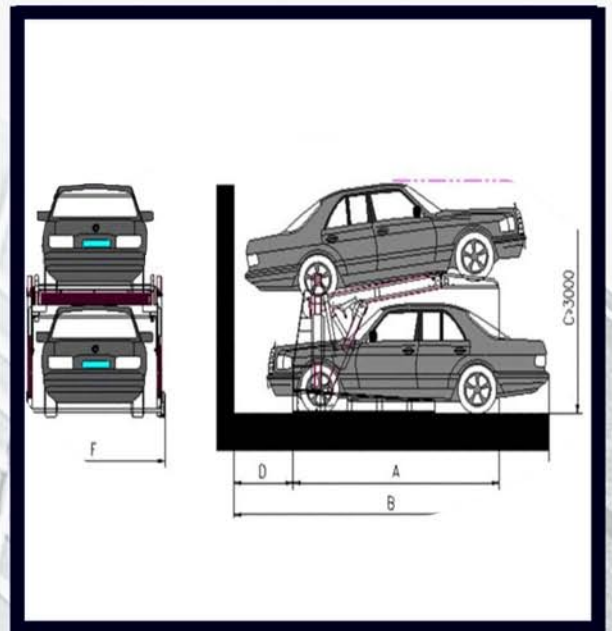


## Operating Principle:

This is two level design parking system, parking space on ground level can park/ retrieve car directly. When parking car on 2nd level. The car on ground level need to be driven out.

## Features:

- System has been designed to provide double parking space for such area where the clear height is less for two level parking
- The construction height requirement is about 3000mm and columns can be arranged according to site requirements.
- Low equipment cost and maintenance cost. Special designed for easy vertical lifting and lowering with low noise, convenient for car goes in and out.





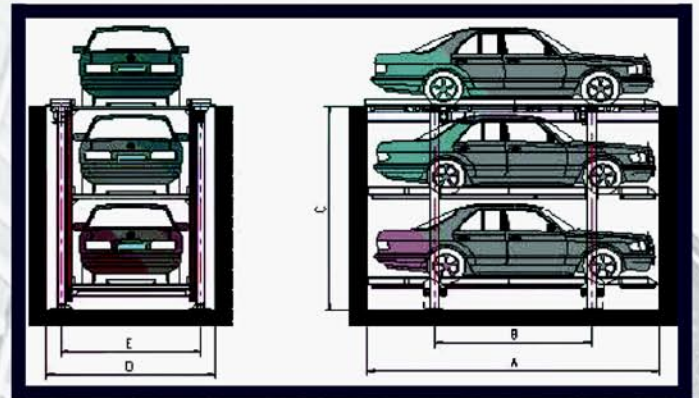
# PIT TYPE 3 LEVEL PARKING EQUIPMENT

## Operating Principle:

This is a three level design parking system, the bottom and middle level installed as a lifting body and those two levels usually stay in pit. The top level can park car directly. When park car from the bottom and middle level, system needs to be operated vertically.

## Features:

- Save land area and take full use of space, columns can be arranged according to your requirements
- Low equipment cost and maintenance cost
- Vertical lift mechanism could be electro-mechanical or hydraulic as per customer's requirement. Specially designed to lift smoothly with low noise, convenient for car goes in or out.

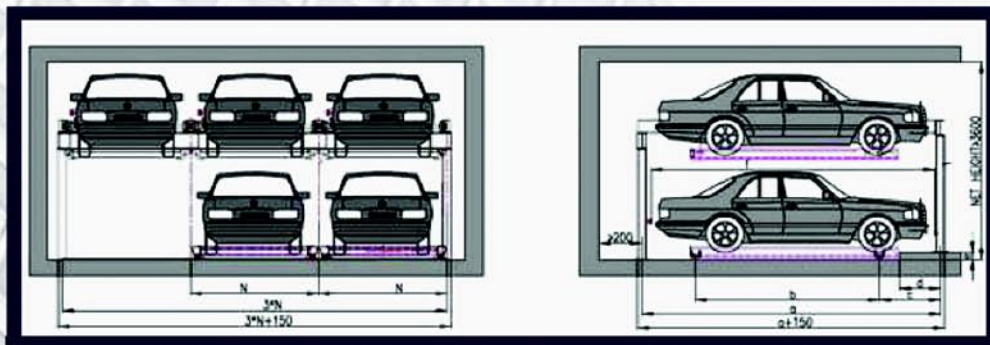




# TWO LEVEL PUZZLE PARKING SYSTEM

## Operating Principle:

This is two level design parking system, parking space on ground level can park/retrieve car directly. When parking/retrieve car on second level, the car on ground level need to be driven out



## Features:

- Save land area and take full use of space and columns can be arranged according to your requirements.
- About awning design, can be designed according to your requirements, such as full awning type, part awning type and simple awning type and no awning type
- Low equipment cost and maintenance cost
- Lift smoothly and low noise, convenient for car go in or out.
- Comprehensive security protection system, such as safety anti-falling hook, mechanism detect people or car entering, car parking limit mechanism, interlock mechanism, emergency brake mechanism
- Adopt PLC automatic control system, use button, IC card and remote control system, amke operation very easy



# THREE LEVEL AND MULTI-COLUMN DESIGN PUZZLE PARKING SYSTEM

## Operating Principle:

This equipment is three level and multi-column design, There's an empty parking space on ground and second level that can slide right or left. Cars parked/unparked by the lifting or car pallet on third and second level and the sliding of car pallet on second and ground level. Parking space on ground level can park/unpark cars directly. When parking/unparking car on second or third level, the car pallet that underneath this car will slide right or left to level and empty space for shift, so the car pallet load this car will reach the ground level, the car can be parked or unparked



## Features:

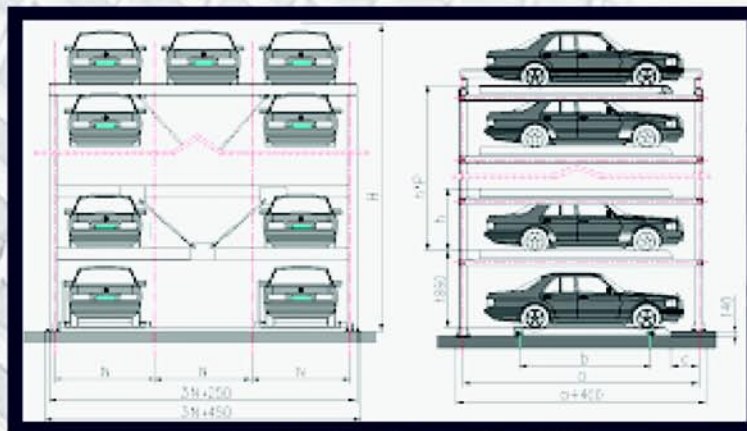
- Save land area and take full use of space and columns can be arranged according to your requirements.
- About awning design, can be designed according to your requirements , such as full awning type, part awning type and simple awning type and no awning type
- Low equipment cost and maintenance cost
- Lift smoothly and low noise, convenient for car go in or out.
- Comprehensive security protection system, such as safety anti-falling hook, mechanism detect people or car entering, car parking limit mechanism, interlock mechanism, emergency brake mechanism
- Adopt PLC automatic control system, use button, IC card and remote control system, amke operation very easy



# FOUR-SIX LEVEL LIFT/SLIDING PUZZLE PARKING SYSTEM

## Operating Principle:

This is multi-column design equipment. The ground level can only slide right or left, the top level can only lift and the middle levels can both slide and lift. Except to top level, there's an empty space on each level that can slide right or left. Cars parked/unparked by the lifting of car pallets on top level, the sliding of car pallets on top level, the sliding of car pallets on top ground level and the lift and sliding of car pallets on middle levels. Parking space on ground level can park/unpark car directly. When parking/unparking car on middle level, the car pallets that underneath the parked/unparked car all slide right or left to leave an empty space and make the empty space just underneath the parked/unparked car. So the car pallet can reach to ground level, then the car can be parked or unparked.



## Features:

- The system structure is very flexible and can be arranged according to your site condition and requirements
- About awning design, can be designed according to your requirements, such as full awning type, part awning type and no awning type
- Save land area and take full use of space, the parking quality is about 5 times compared with normal balance parking lot
- Low equipment cost and maintenance cost
- Lift smoothly and with low noise, convenient for car goes in or out
- Comprehensive security protection system, such as safely anti-falling hook, mechanism detect people or car entering, car parking limit mechanism, interlock mechanism, emergency brake mechanism
- Adopt PLC automatic control system, use button, IC card and remote control system, make operation very easy
- This is an above ground type parking system. It's suitable for residential area, commercial center, office buildings, stations, hospitals etc.



# VERTICAL LIFTING PARKING SYSTEM-TOWER PARKING

## Operating Principle:

This equipment adopt lift which with car platform to lift the car or car pallet to the specified level, then use the sliding mechanism that installed on the lift engine (car case) convey the car or car pallet to parking space, or on the other hand, the sliding mechanism convey the specified car or car pallet to the elevating channel, the lift engine (car platform sill ) descend to the entry level, the rotation platform rotate to make sure the forward of the car is outside, then the driver come into the garage to drive the car away

## Features:

- This equipment usually put two cars per level, the plane and space utilization is highest in all type parking systems
- This equipment has the advantages of gigh park/unpark efficient low noise and low vibration, meet the requirement of urban environment protection
- Intelligent control and perfect security, there's light guide when cars in/out the garage, car over length monitor, speed limit protection and multiple mechanical interlock all guarantee the safety of car and personnel
- Garage and be designed separately. even in interior of building. And can be arranged abreast with several sets
- Frame structure can be adopted concrete or steel structure, with different choice and great conveniences.
- Garage have the function of automatic rotary to turn around, can ensure the car goes in/our by front, which is convent driving in and out of the garage
- Complete and reliable safety device, added the function of inspect the car length, width and height, and can check out if there's person in car, eradicate the potential risk of the equipment from the technology aspect
- The operation is simple and we adopt friendly man-machine interface, such as touch screen. Adn all the stoppages of the equipment will appear on the screen which is convenient for maintenance.
- PLC Computer control and frequency control of motor speed, very convenient and efficient.



# AUTOMATED PARKING SYSTEM WITH LEVEL CONVEYOR

## Operating Principle:

This equipment park car automatically to the multi-level parking space by elevator's vertical lift and the reciprocating movement of conveyor on same level, And cars turned around by the rotation pallet in parking room, ensuring the forward of car is outside, and convenient driving car in and out.

## Features:

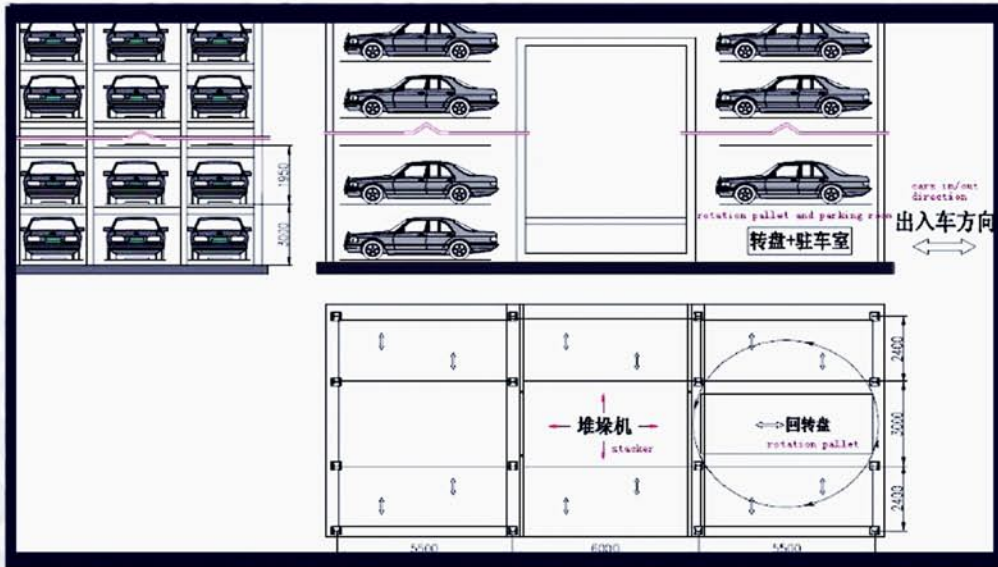
- There's no need of ramp, so that can save land area and the parking capacity density is big to take full use of space
- Park/Unpark automatically and easily, can park/unpark by a button press or swiping card
- The most suitable building place is underground parking garage with long laneway
- Equipped with safety protection device, ensure safety and reliable to avoid various accidents
- Adopt photoelectric safety inspection to control the dimension and quality of parking cars
- Generally do not need forced ventilation and there's no large area lighting, energy saving

## Most Suitable Applications:

This equipment can be applied for both above ground or underground, especially suitable for the large garage with short laneway but multi stories



# AUTOMATED PARKING SYSTEM WITH LEVEL CONVEYOR

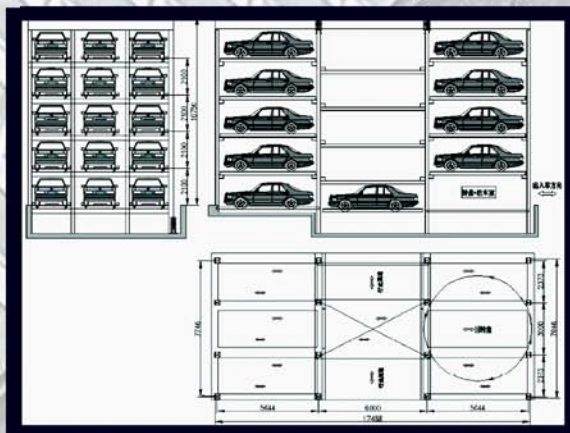


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# FULLY AUTOMATED PALLET SHIFTING CAR PARKING SYSTEM

## Operating Principle:

This equipment seek parking spaces by the vertically and horizontally moving of the stacker or bridge crane and park/unpark cars by the sliding equipment on the stacker or bridge crane



# PLEASE FEEL FREE TO CONTACT US WITH YOUR REQUIREMENTS OF:

- Two level & Three level vertical stack parking system
- Tilting Stack parking system
- Puzzle parking & Pit Type Puzzle Parking System
- Comb Exchange & Pallet type Tower Parking System
- Fully automated Pallet Shifting System
- Horizontal Pallet Circulation System
- Fully Automated Shuttle Cart System
- Car Elevator

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