

# OMER



PARKMATIC



OMOLOGATO  
CE 0044  
APPROVED

# OMER



*Established in 1963 by Mr. Eride Rossato as a personal company in the field of mechanical and steel structural industry, when the activity later expanded and the production volume tremendously increased, the Company was transformed into a capital Company (S.p.A).*

*O.M.E.R. S.p.A. is a modern Company for the manufacture of hydraulic lifting equipment for road vehicles and parking systems.*

*Head office and premises are located in the Industrial Area of Mirano, at 25 Km from Venice, Italy, on a property of about 60.000 m<sup>2</sup>, with a building of 18.000 m<sup>2</sup> for factory and 1400 m<sup>2</sup> for offices and engineering department; employees and workers are over 100.*

*The current production includes more than 100 different models of pantograph and scissors lifts hydraulically operated, with capacity range from 2500 Kg to 52000 Kg and manufactured in many versions to lift cars, trucks and busses according to the use required and to meet customer's requests.*

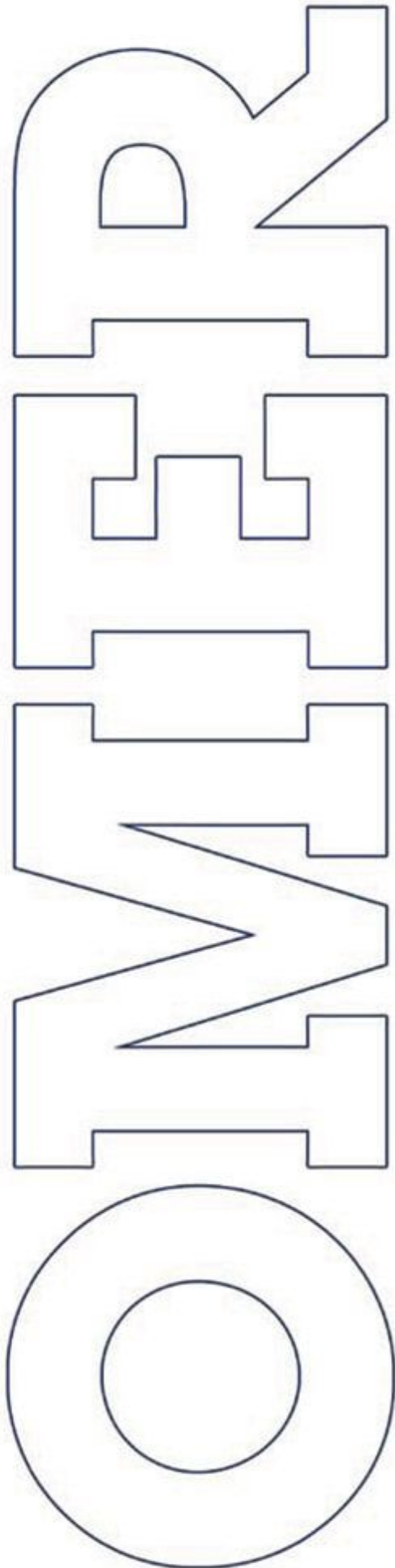
*Beside the lift production, there is also a wide range of parking systems that goes from the simplest model to park two cars one on top of the other, to the more complex of unlimited capacity, fully automated and robotized, controlled by a sophisticated computer software.*

*All OMER lifts are tested and approved according to the safety rules of all European Countries, U.S.A. and many Far East Countries and are protected by more than 60 international patents. In order to ensure the highest quality and reliability of products, factory equipment includes sophisticated automatic machines and robotized welding machines, as well as a modern sandblasting machine and a 400 mt long painting system.*

*Computers are also used for the general management of all office matters: production and technical planning, inventory, purchase programming and accounting.*

*The subsidiary companies of the Group are located in the nearby areas for logistic purpose and they have been created to take advantage of the group's synergies in the coordinate production of all the hydraulic and mechanical components.*





## The "Parkmatic" Automatic Parking System

PARKMATIC is an automated electrohydraulic system with completely robotised functions enabling optimum exploitation of confined areas such as courtyards, obsolete garages or the basements of city centre buildings.

PARKMATIC consists of:

- an independent self-supporting fixed modular structure;
- an electrohydraulic robot or mobile structure;
- a hydraulic control unit (motor, pump, solenoid valves, etc);
- computerised control systems and relative dedicated software;
- control panels;

The basic module consists of a robot with transfer truck for pick up and delivery on the levels.

The completely automatic system is operated via a personalised magnetic card. On arrival, the user inserts the magnetic card to open the car park access bar. When the bar is open, the car is parked on the "entry" platform. A system of crossed photoelectric cells controls precise positioning of the car on the platform and, at the same time, the height of the vehicle in order to direct it, if necessary, to the tallest cells located on the first floor of the system.

A signal warns the driver if the car is not precisely positioned on the platform.

At this point, after blocking the car, the driver gets out and inserts the magnetic card into the control panel. This activates the ROBOT which takes the platform from the ENTRY cell and deposits it in the cell reserved for the user.

Once the car has been deposited, if there are no "departure" calls, the robot takes the empty platform and deposits it in the ENTRY cell, thus resetting the whole system for a new parking operation.

The system is made from high quality materials. Treatments protecting against atmospheric and chemical agents also help extend the working life and at the same time reduce maintenance costs.

Unlike in a traditional car park, with PARKMATIC there is no need to supervise the levels to avoid theft as once the user has deposited the vehicle in the "ENTRY" cell he leaves the car park and no-one has access to cars while in the cells. As well as excluding the danger of attacks against people or theft or damage to cars or their contents, the risk of fire caused by car backfires is also reduced. Thanks to these and other special characteristics, with PARKMATIC the cost per car-space is more competitive given the improved exploitation of space, lower structural costs, reduced manpower requirement and lower third party, fire and theft insurance premiums.

Where required by specific legislation, all parking systems incorporate a fire prevention system.

PARKMATIC is always constructed on the basis of specific space requirements or to the customer's design.

*This product has the CE Mark*



# TRADITIONAL PARKING SYSTEMS

- 1** Underground or above ground central loading robot system  
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- 2** Underground or above ground lateral loading robot system  
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- 3** Underground only central loading robot system  
Pag. 12
- 4** Single or multi level underground or above ground horizontal rotation system  
Pag. 14
- 5** Multi level only underground or above ground vertical rotation system  
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# PARKMATIC ON SPECIAL PROJECTS

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Pag. 20
- B** Side-by-side cell parking system with entrance independent from fixed structure  
Pag. 22
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- F** System with horizontal car rotation on each floor  
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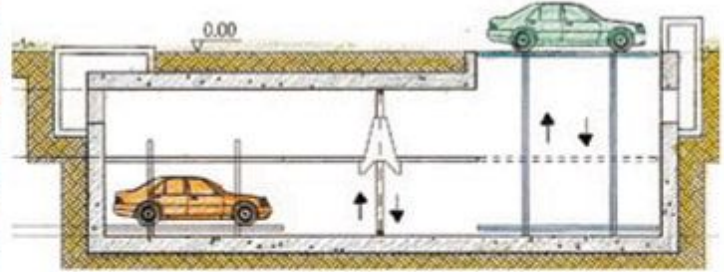


- 1** Underground or above ground central loading robot system
- 2** Underground or above ground lateral loading robot system
- 3** Underground only central loading robot system
- 4** Single or multi level underground or above ground horizontal rotation system
- 5** Multi level only underground or above ground vertical rotation system

# TRADITIONAL PARKING SYSTEMS

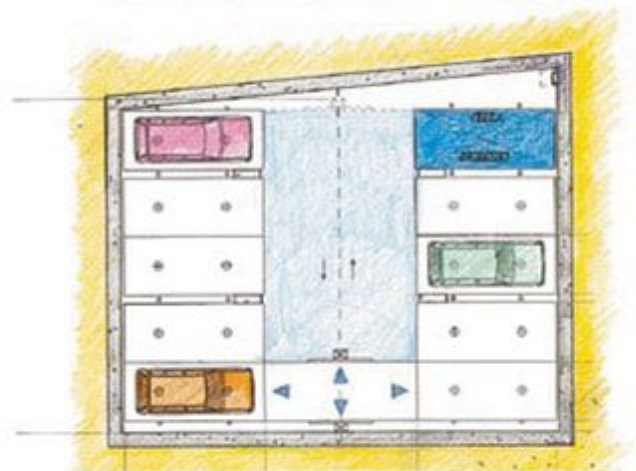


The completely modular bolt-together PARKMATIC structure makes installation simple and rapid. It can be adapted to all spaces available in the urban fabric, whether outdoors, underground or inside existing buildings.



sectional view

The system can be extended either in height or in length for a vast range of potential solutions according to the surface area available. As can be seen from the example given here, the car enters the entry cell and with a simple confirm operation is then automatically parked in a dedicated cell.



underground plan (1st floor)

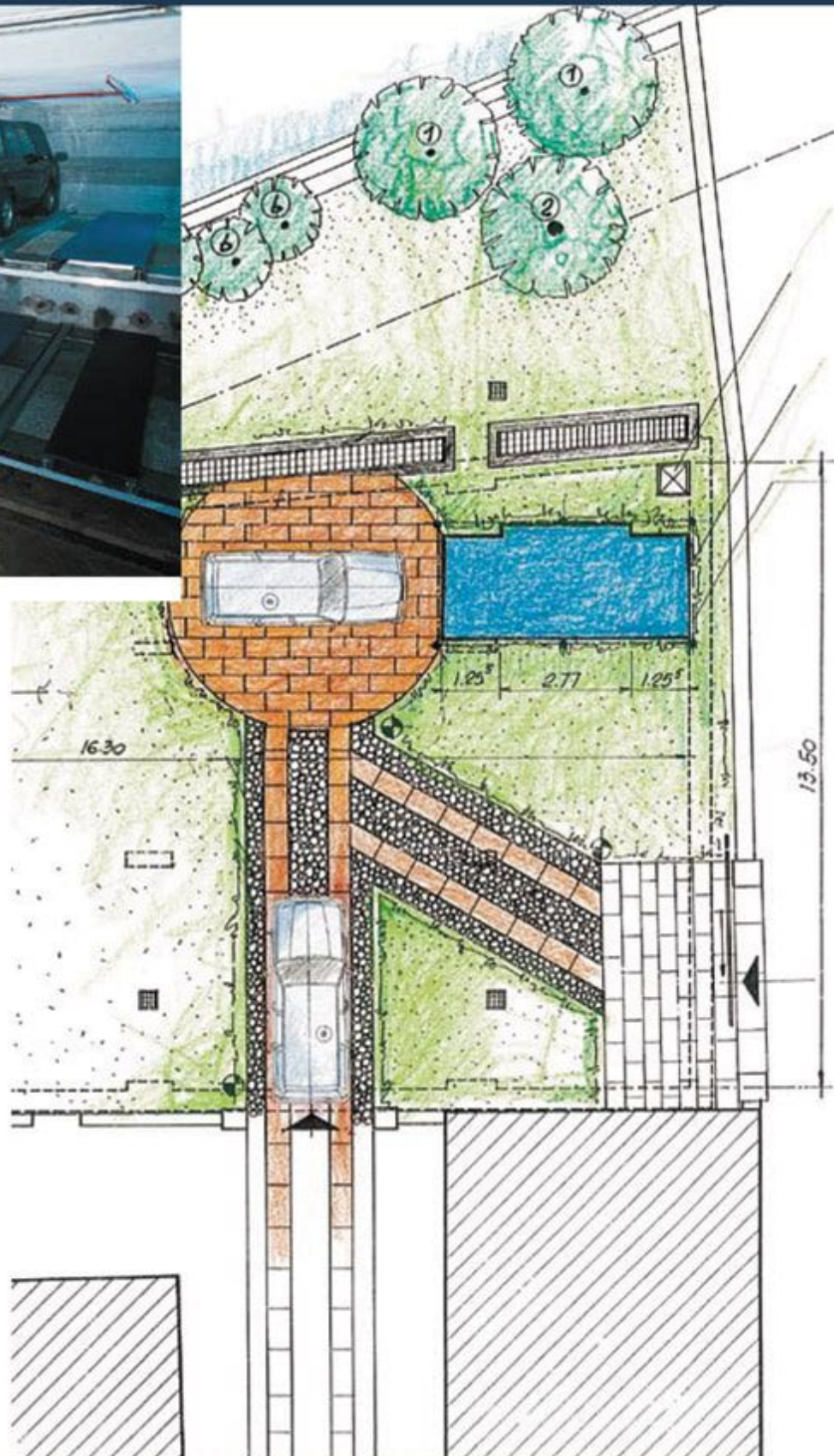
# 1

## Underground or above ground central loading robot system

The platform support runs vertically on special guides in the self-supporting structure. Movement is controlled by hydraulic pistons. The hydraulic pistons to control traverse of the platforms from the parking cell and align the mobile structure with the cell are housed inside the robot.

All movements of the robot structure are commanded and controlled by the computerised system which optimises parking and pick-up operations, setting the conveyance speed and the combination of contemporary horizontal and vertical movements.





## PARKMATIC

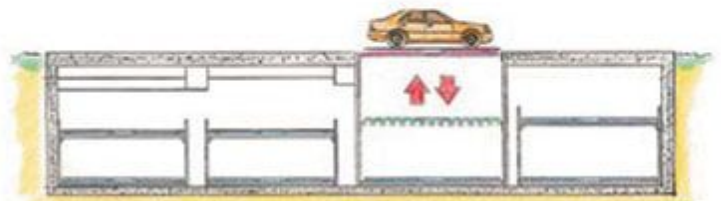
Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 40Kw	5200	2200	≈ 100

# 2

## Underground or above ground lateral loading robot system

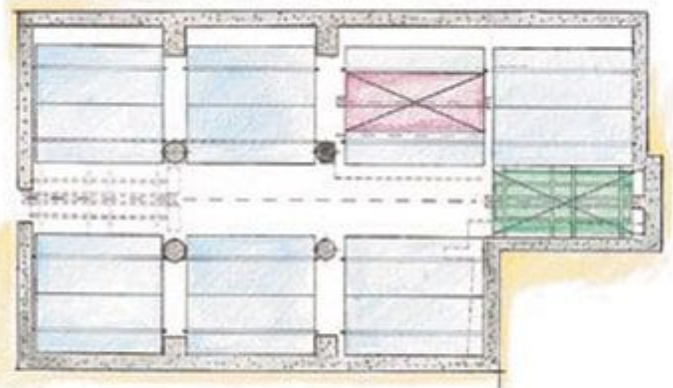
The "close-row" system consists of two rows of platforms side-by-side. Under these and anchored to the ground is the transport system responsible for horizontal movement of the platform following a rectangular layout. This system is also suitable for constructing single level automated car parks. If underground, the excavation depth can be kept to less than three metres.

The characteristic rectangular shape created by the single module or repetition of a number of modules enables extremely compact parking areas to be constructed with platforms arranged longitudinally.

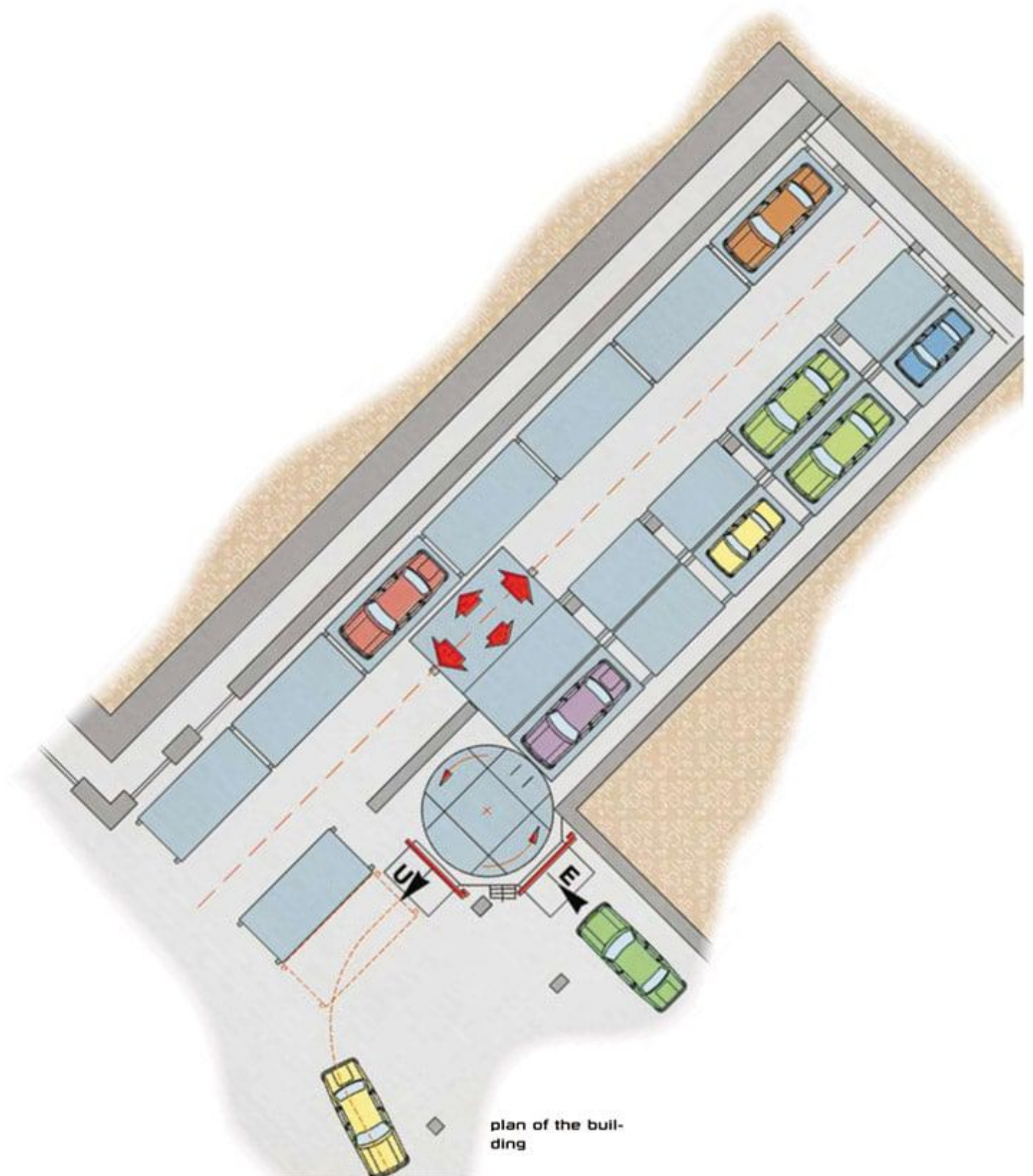


sectional view

The logic sequence of parking and pick-up operations considerably reduces parking times. This solution is ideal for typical applications in the private and public services sector such as banks, theatres, cinemas, shopping centres, rotation or mixed car parks.



underground floors plan



plan of the building

## PARKMATIC

Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 40Kw	5200	2200	- 100 - 150

# 3

## Underground only central loading robot system

The "opposing stalls" system is characterised by a series of platforms on which the cars are placed one above the other. These are arranged in special stalls laterally to a lift.

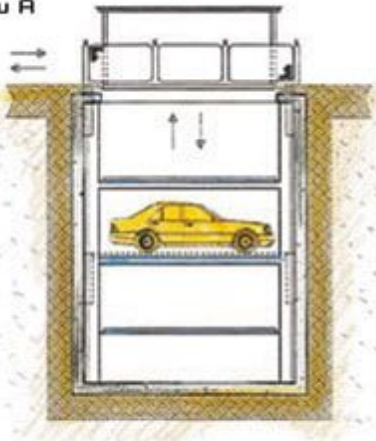
The platform is deposited (or picked up) by the lift which moves between the various parking levels.

The parking capacity consists of two cars per level and the total number of car-spaces is therefore proportional to the number of underground levels.

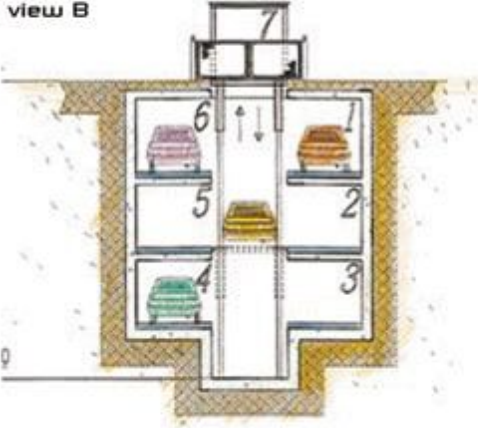
The cost per car-space is obviously higher as there is a limited number of spaces among which to divide the costs of the robot and building work.



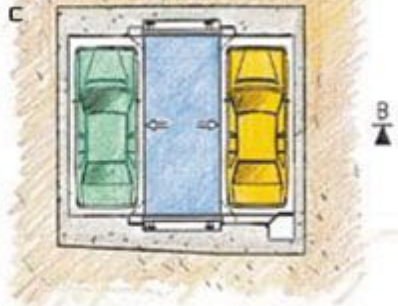
sectional view A



sectional view B

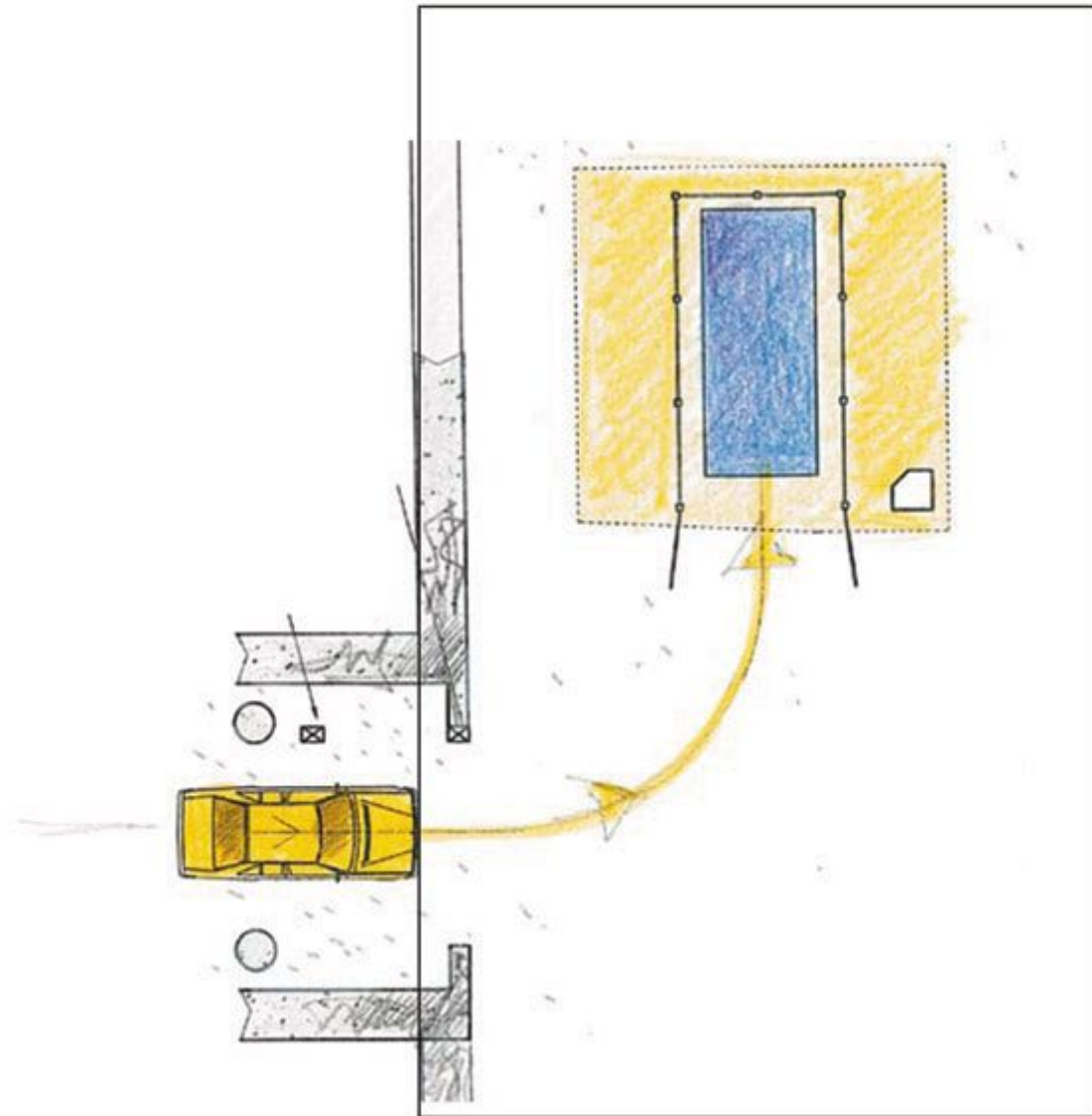


sectional view C



The PARKMATIC operating principle is extremely safe and secure for the user as parking involves simply depositing the car in the ENTRY cell without having to enter the car park.

The entry structure made from structural steel moves longitudinally with respect to the modular fixed structure, running on two rails and controlled by hydraulic cylinders.



plan of the building

Typical applications are small city centre courtyards limited to, for example, some 6-8 metres per side.

## PARKMATIC

Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 15Kw	5200	2200	~80



# 4

## Single or multi level underground or above ground horizontal rotation system

In this type, the quantity of levels and stalls per level varies according to the number of car-spaces required and the type of use, as well as other existing constraints.

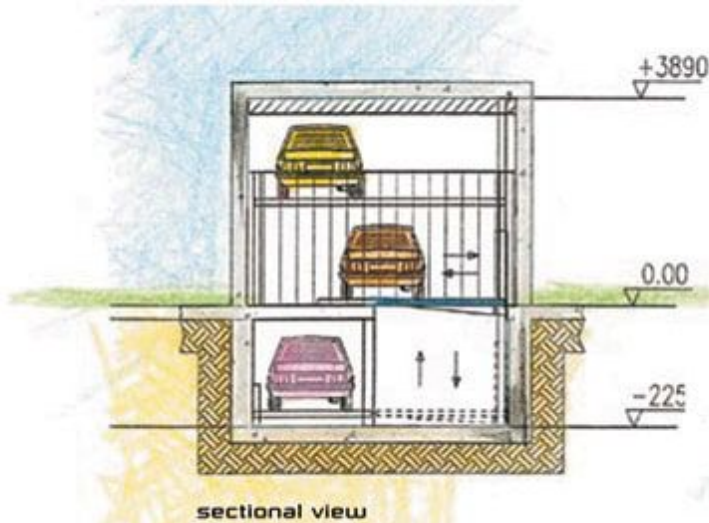
Car handling involves a combination of movements.

All pulses for executing the main (parking, pick-up) and accessory operations (opening of entry bar etc) are given directly from the control panel to the computerised system by means of a magnetic card.

The buttons for emergency operation of the whole system are inside the control panel and accessible only by means of a special key.

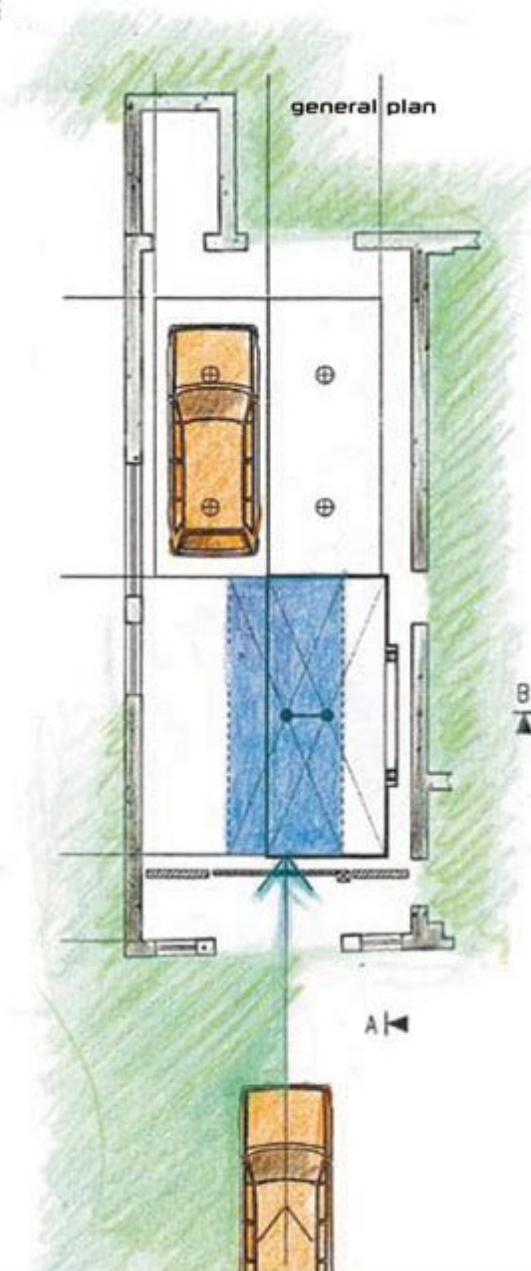
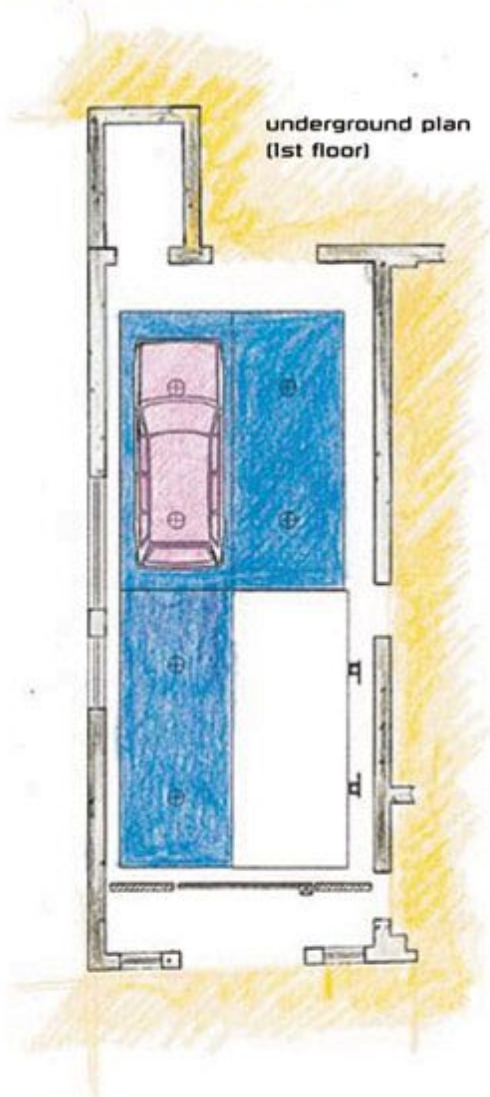






The constructional characteristics making the PARKMATIC system unique are:

- Metal structure (rapid assembly/disassembly), self-supporting and independent of other structures.
- To install the structure, no foundations are required.
- The individual car platforms can be moved independently.
- Low installed electrical power.



## PARKMATIC

Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 15Kw	5200	2200	~120

# 5

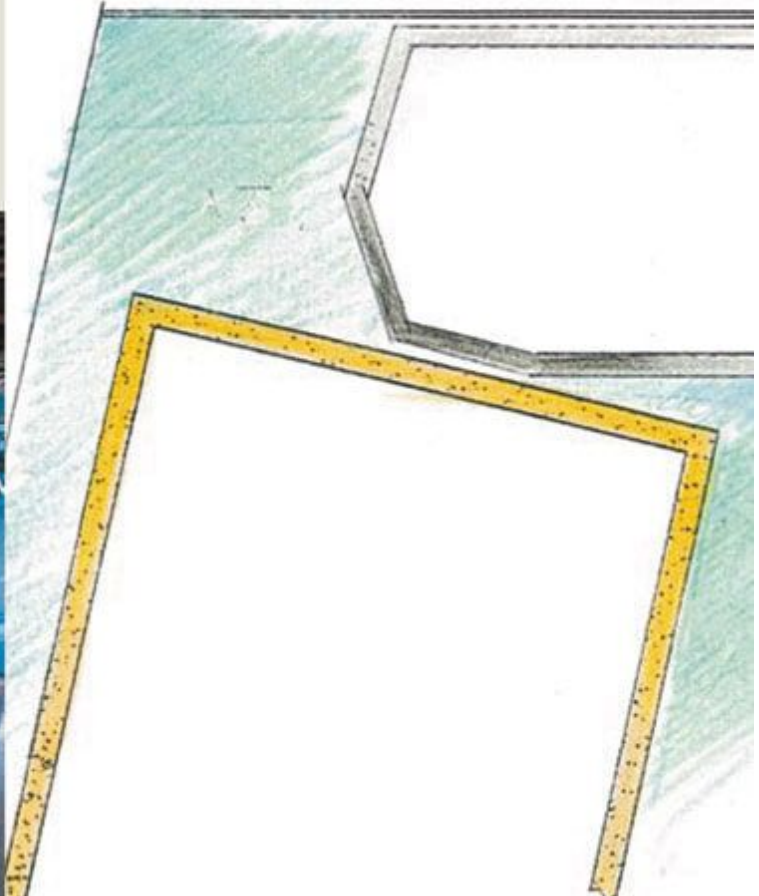
## Multi level only underground or above ground vertical rotation system

The system is characterised by the superimposition of two or more rows of platforms, under each of which is positioned a horizontal conveyance system. Lifts at the ends of the rows transfer the platforms between the various levels.

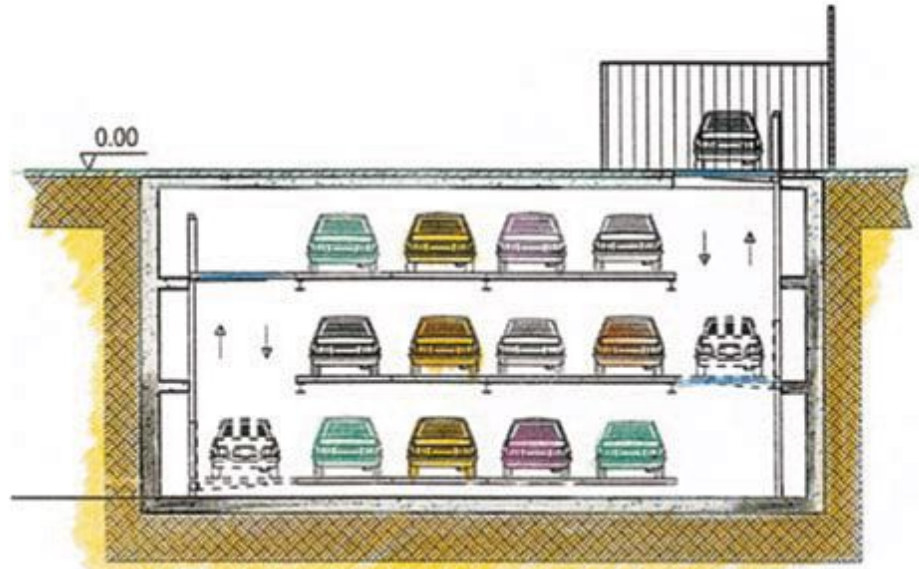
This system is suitable for narrow (for example 6-7 metres) long (10-15 metres) areas, enabling installation of one single row of cars side-by-side in plan. When the potential excavation depth is sufficient, at least two levels (4.5-5 metres) can be constructed.



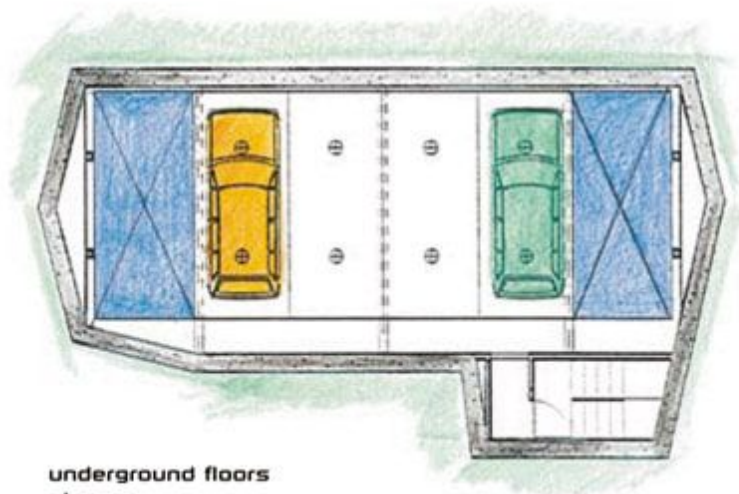
plan of the  
building



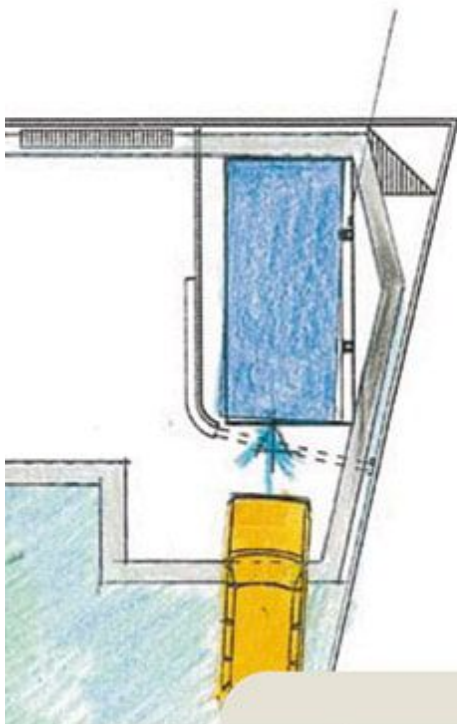
The modular composition of the system, together with the different cell sizes, makes it extremely versatile for all types of car or situation. The system can be used to construct underground car parks in urban courtyards with the aim of achieving an economical concentration of car parks in a limited area, reducing management costs, improving user safety and speeding up car transfer. The system requires at least two levels for rotation of the parking cells.



sectional view

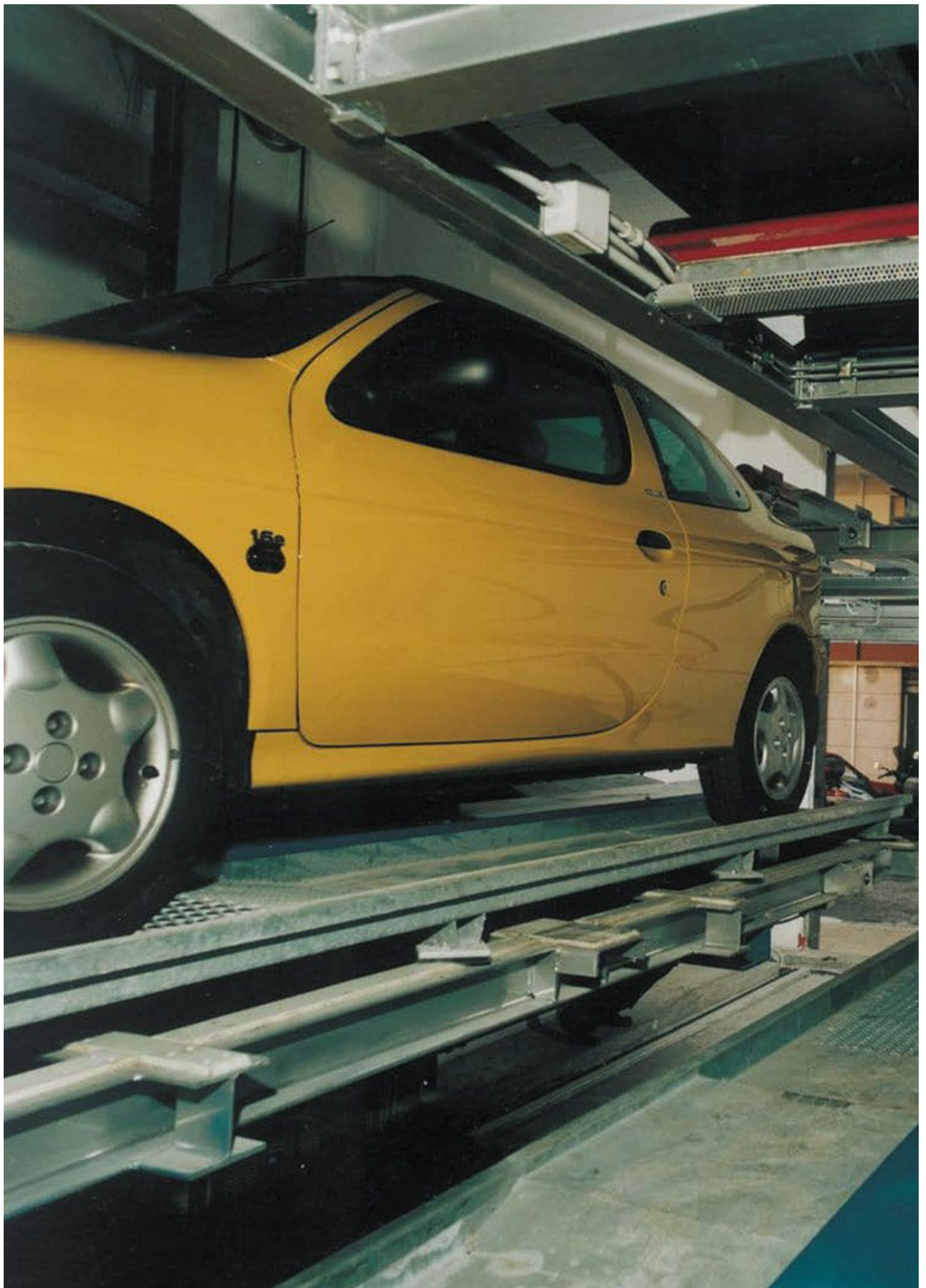


underground floors plan



## PARKMATIC

Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 20Kw	5200	2200	~200



Automated car parks can be constructed even in extremely small spaces and extended downwards according to the requirements and underground situation. This enables a sufficient number of car parking spaces to be obtained to satisfy the needs of those living in the block of flats, giving owners the chance to keep their car near at hand.

These are flexible modular structures which can be adapted to specific needs, creating the ideal solution.

Here are some examples of "made to measure" solutions constructed by OMER spa in recent years.

- A** Underground or above ground automatic system with controlled entry cell rotation
- B** Side-by-side cell parking system with entrance independent from fixed structure
- C** System with central lift, double cells and entry with 180° car rotation
- D** Multi level system with movement of car platforms on two axes with respect to horizontal plane
- E** Car parking system consisting of robotised car-spaces
- F** System with horizontal car rotation on each floor

# A

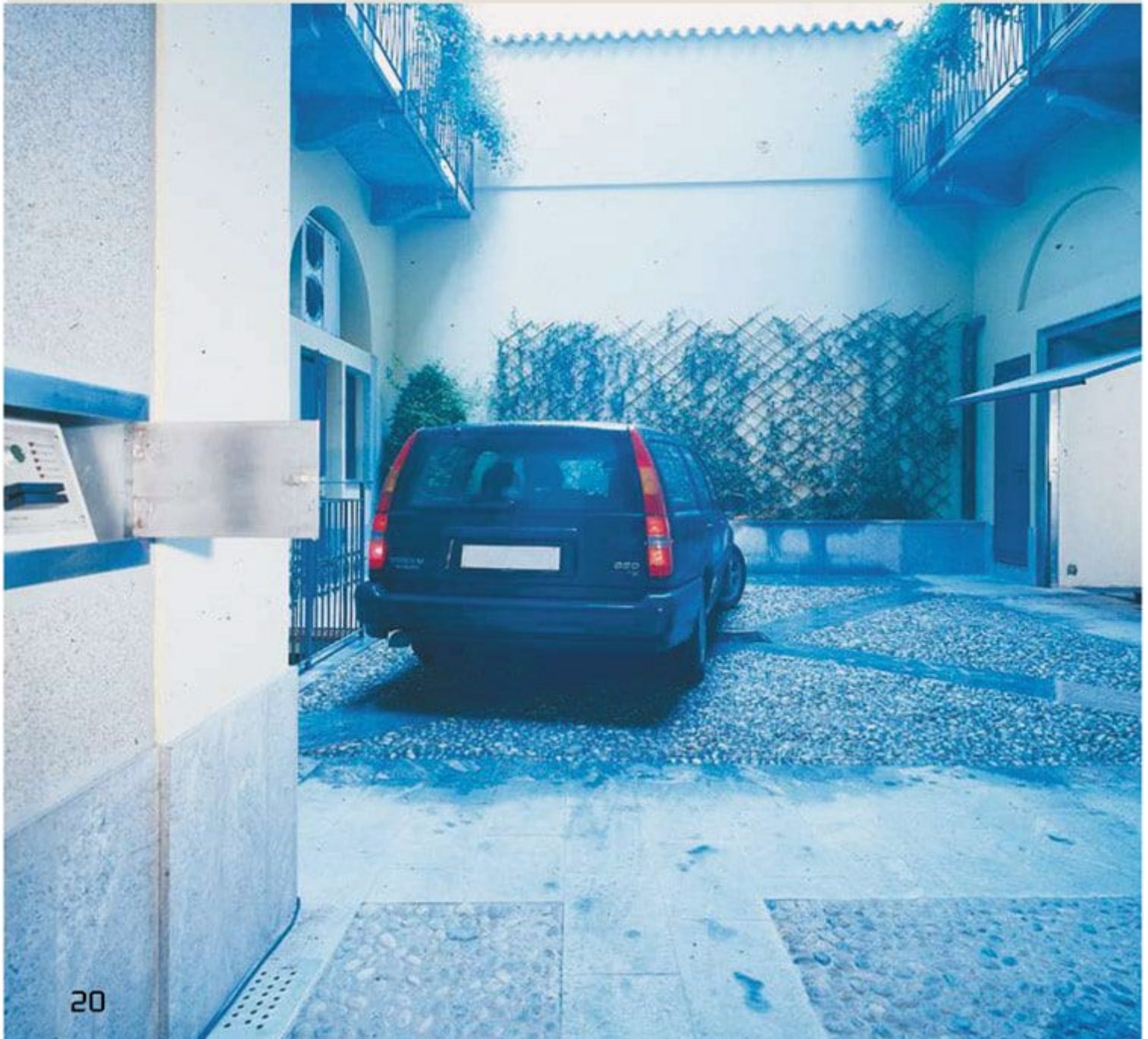
## Underground or above ground automatic system with controlled entry cell rotation

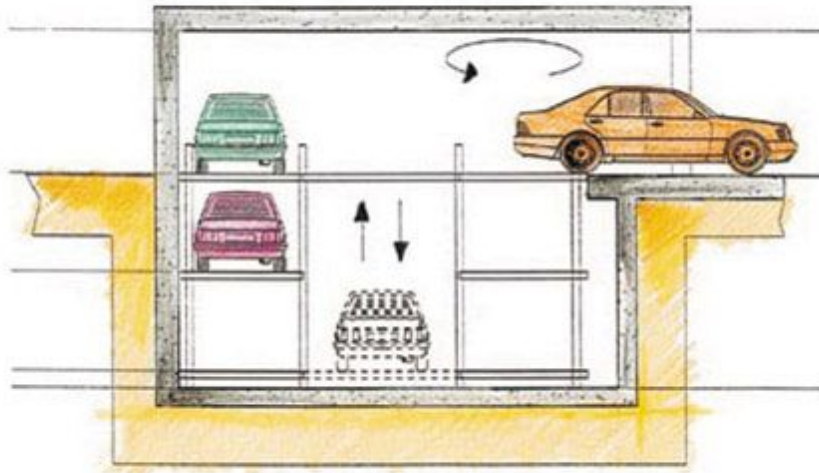
**Five car-space module.** This solution is the result of extending a standard solution to enable storage of five cars on three underground levels on an available area of 30 square metres.

It is particularly suitable where the available surfaces are limited such as courtyards or gardens of city centre buildings.

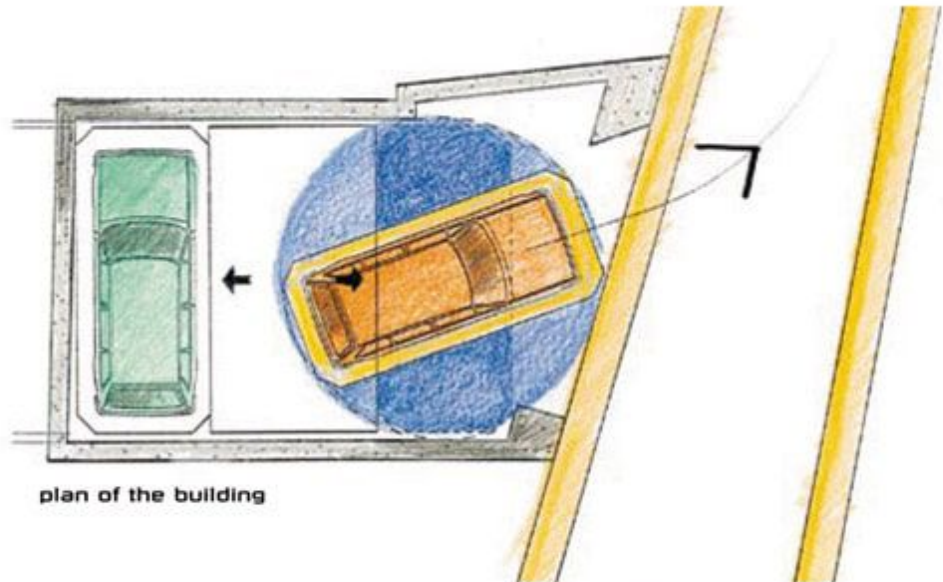
It is available in underground, above ground or mixed versions.

Car access to the lift cell is via a rotating fifth wheel.

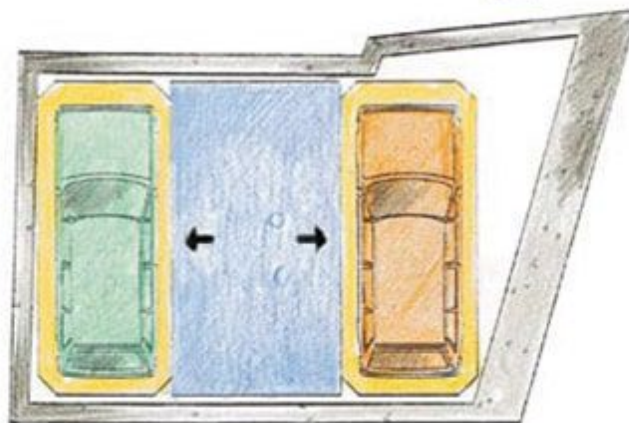




sectional view



plan of the building



underground floors plan

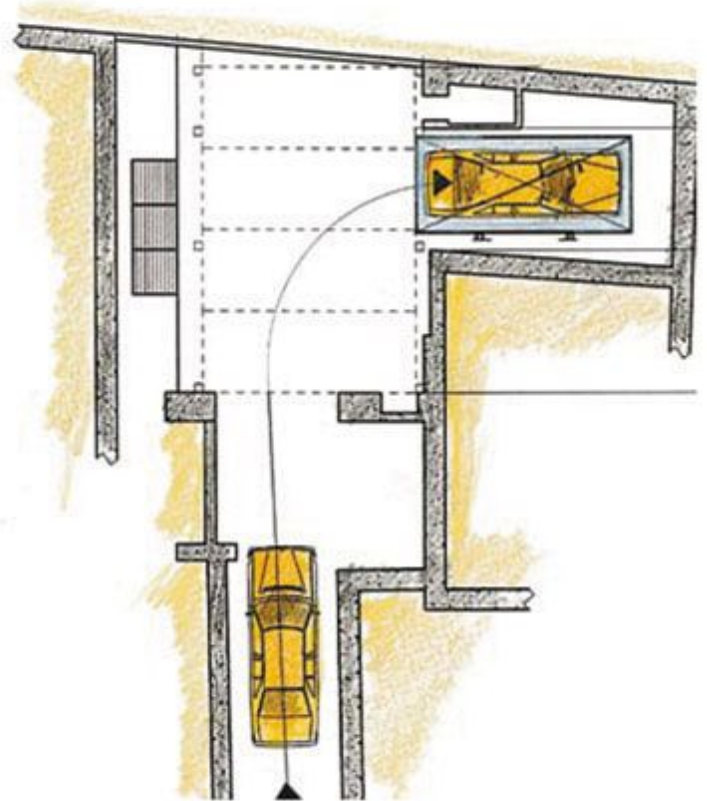
## PARKMATIC

Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 25Kw	5200	2200	~150

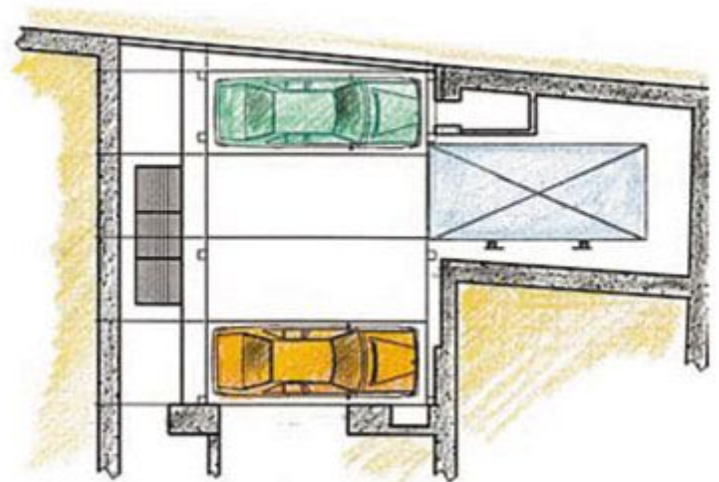
# B

## Side-by-side cell parking system with entrance independent from fixed structure

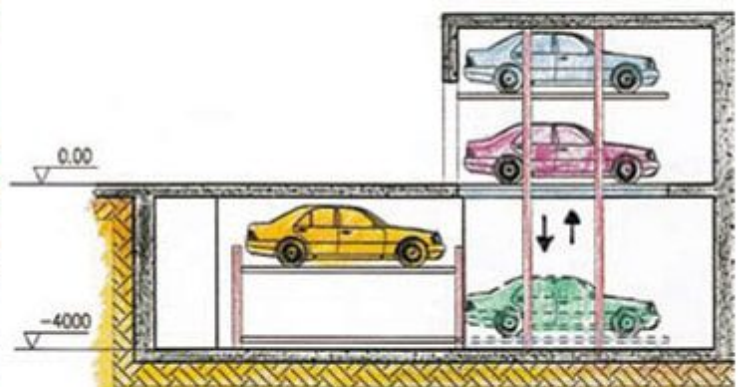
Module for six car-spaces. This solution enables six cars to be stored on two underground levels with an available area of 40 square metres.



general plan



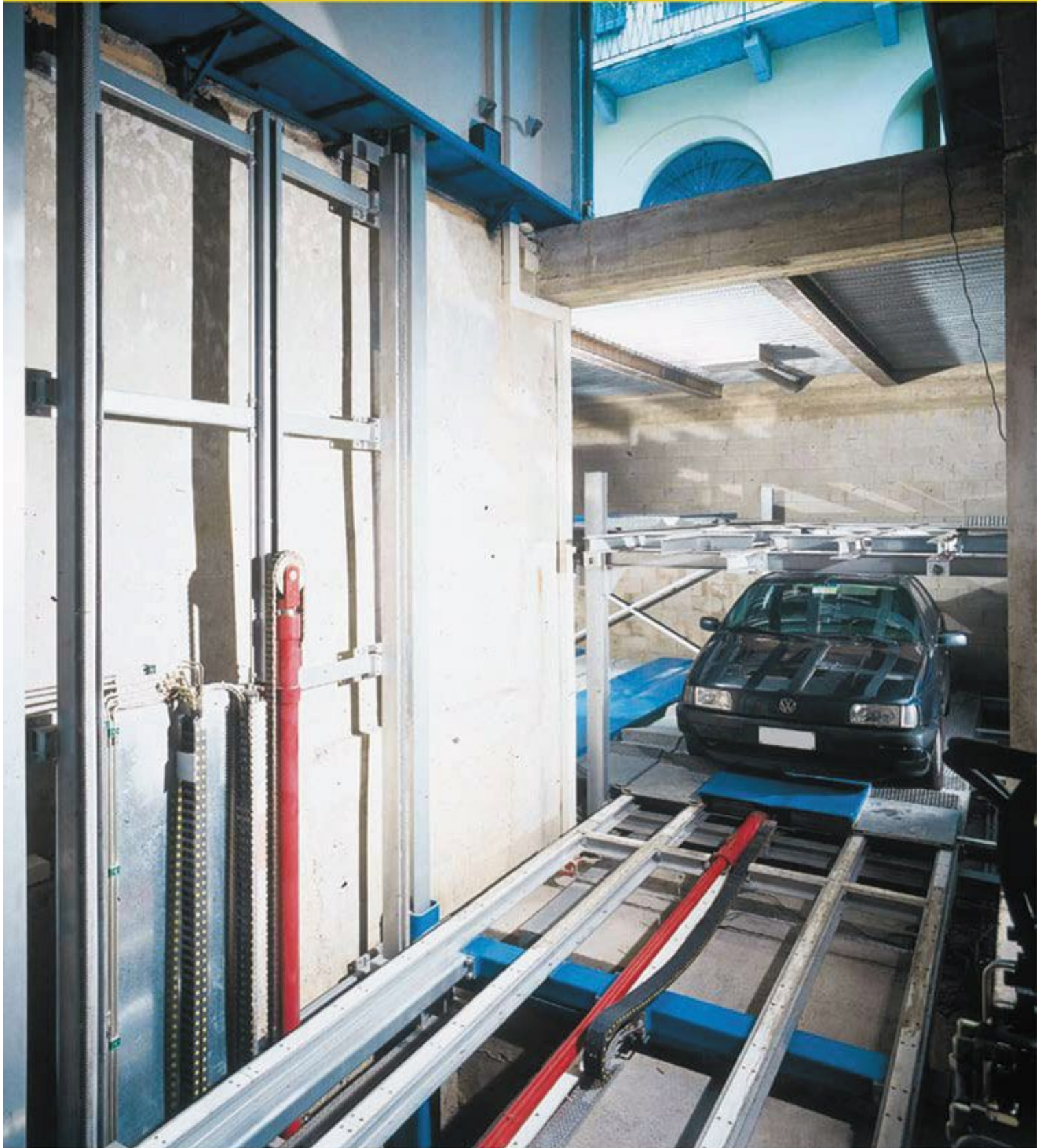
underground floors plan



sectional view







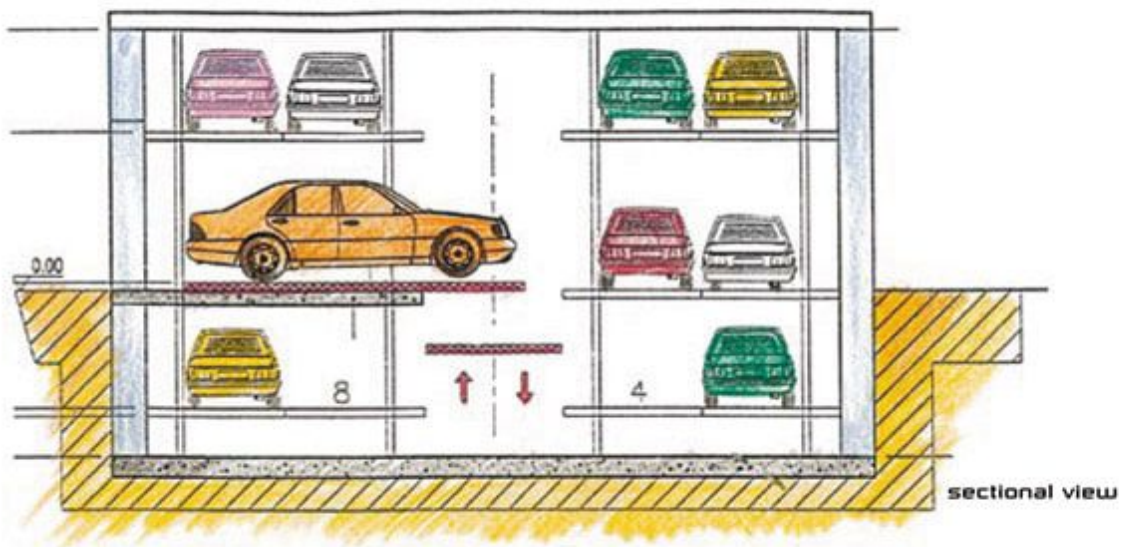
## PARKMATIC

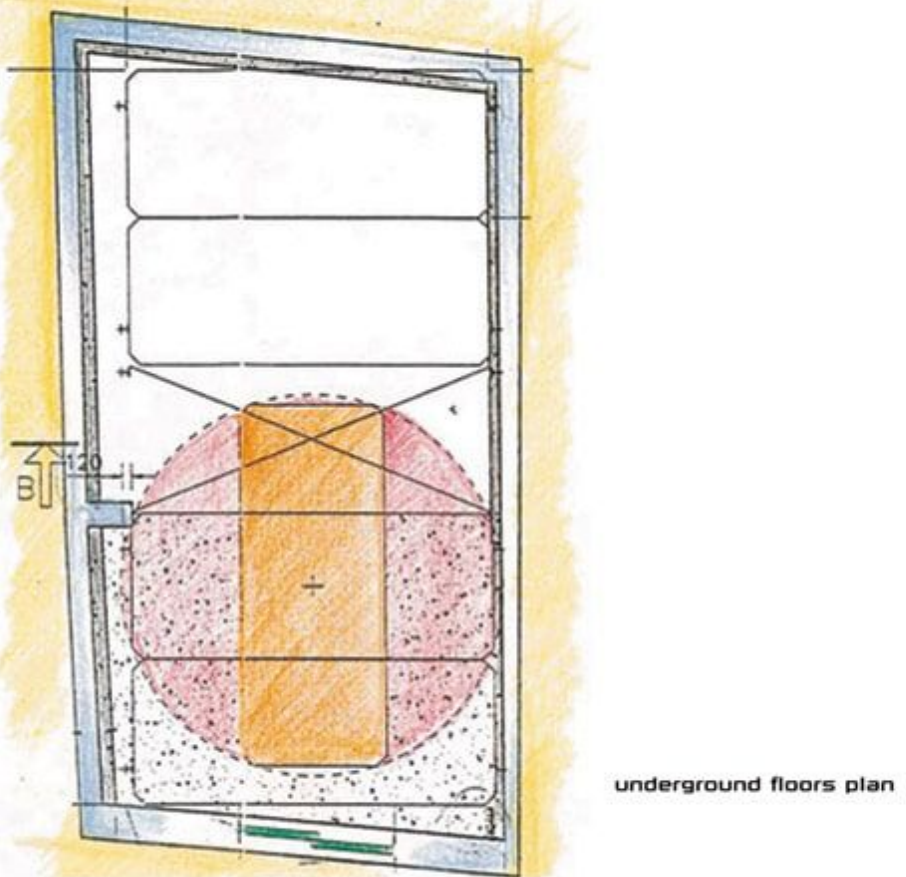
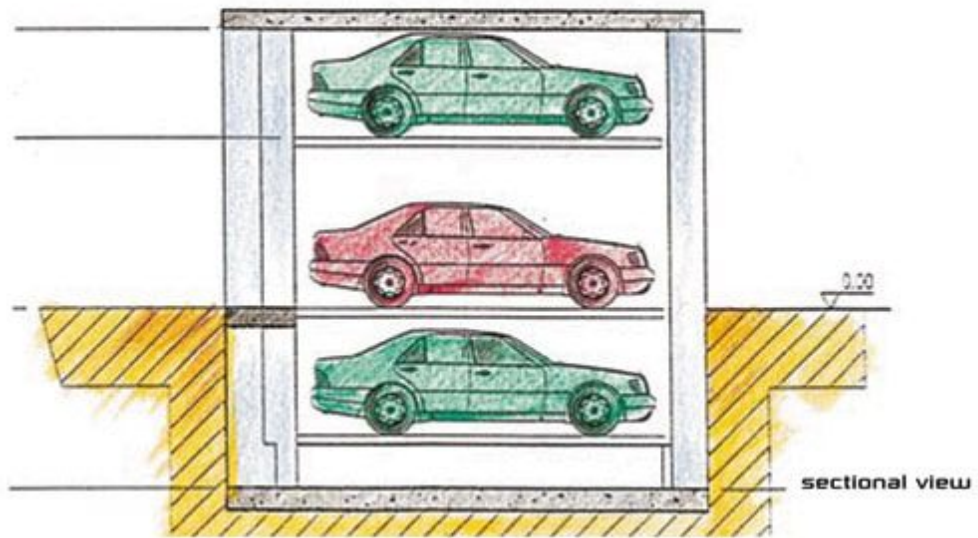
Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 25Kw	5200	2200	~180



System with central lift, double cells and entry with 180° car rotation

Nine car-space module. This solution enables nine cars to be stored on three underground levels with an available area of 55 square metres.





## PARKMATIC

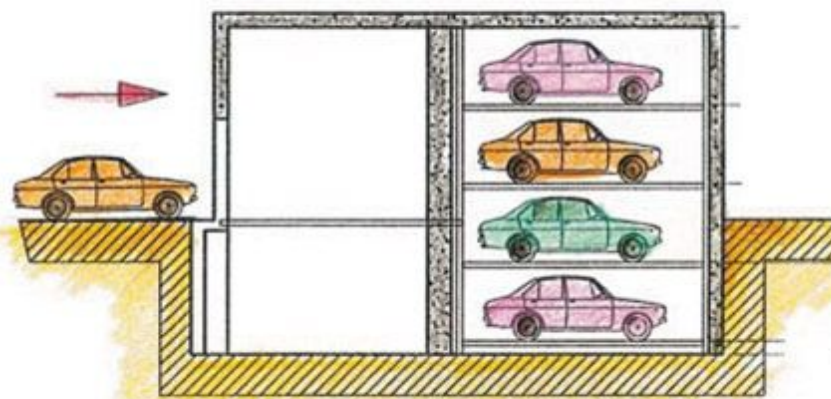
Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 30Kw	5200	2200	~120



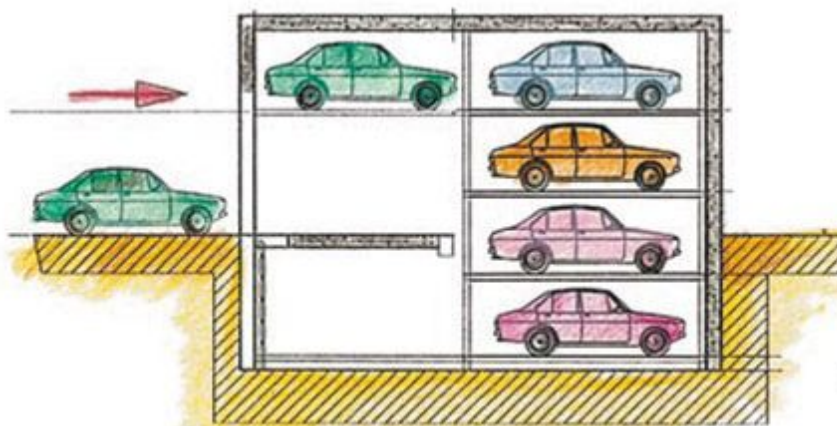
**Multi level system with movement of car platforms on two axes with respect to horizontal plane**

**Fifteen car-space module.** This solution enables 15 cars to be stored on four underground levels with an available area of 100 square metres and is ideal for using an old garage by modifying the volume.

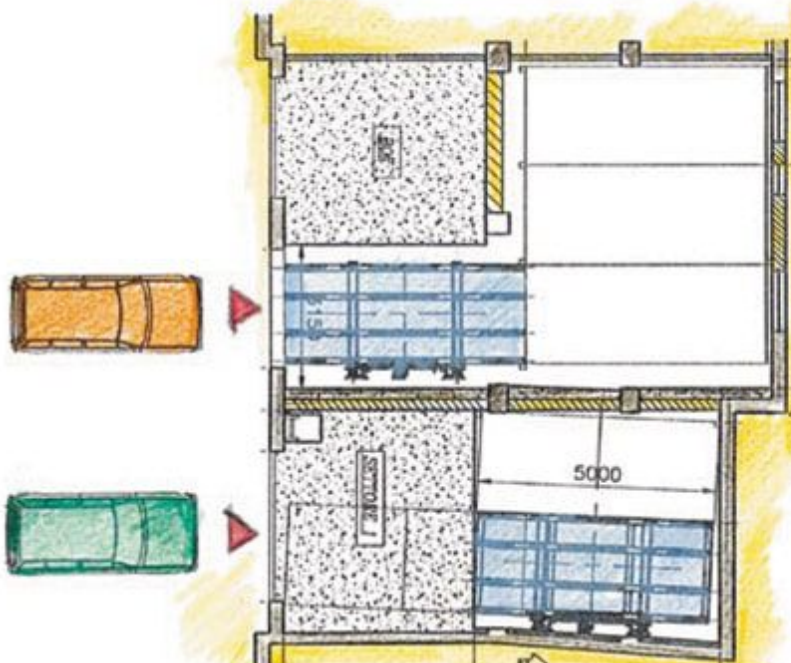




sectional view



sectional view



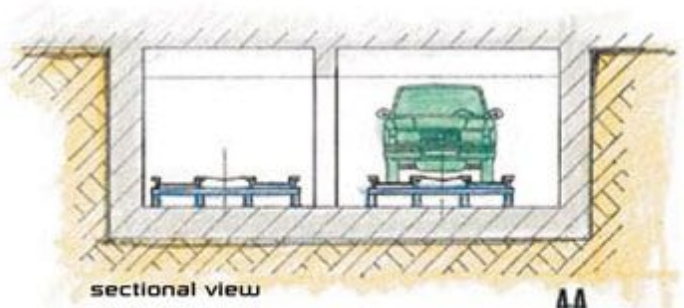
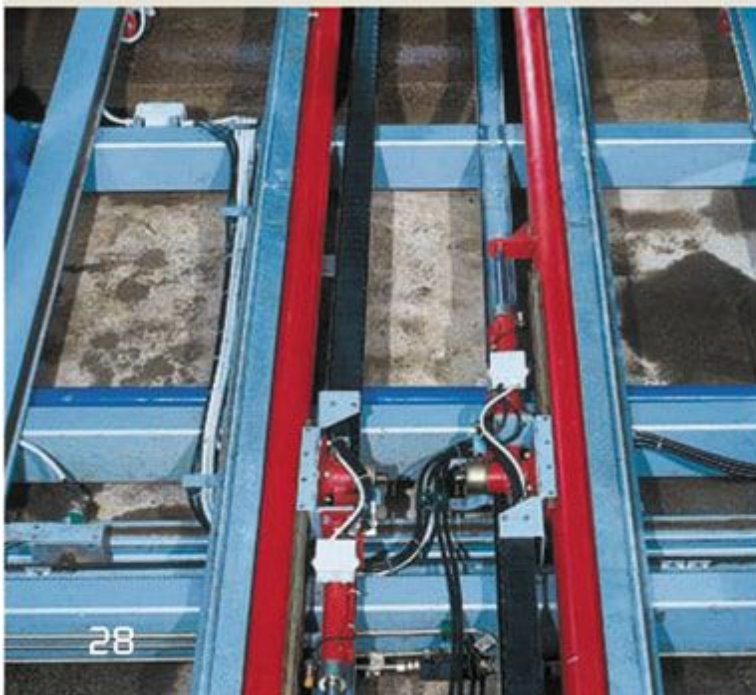
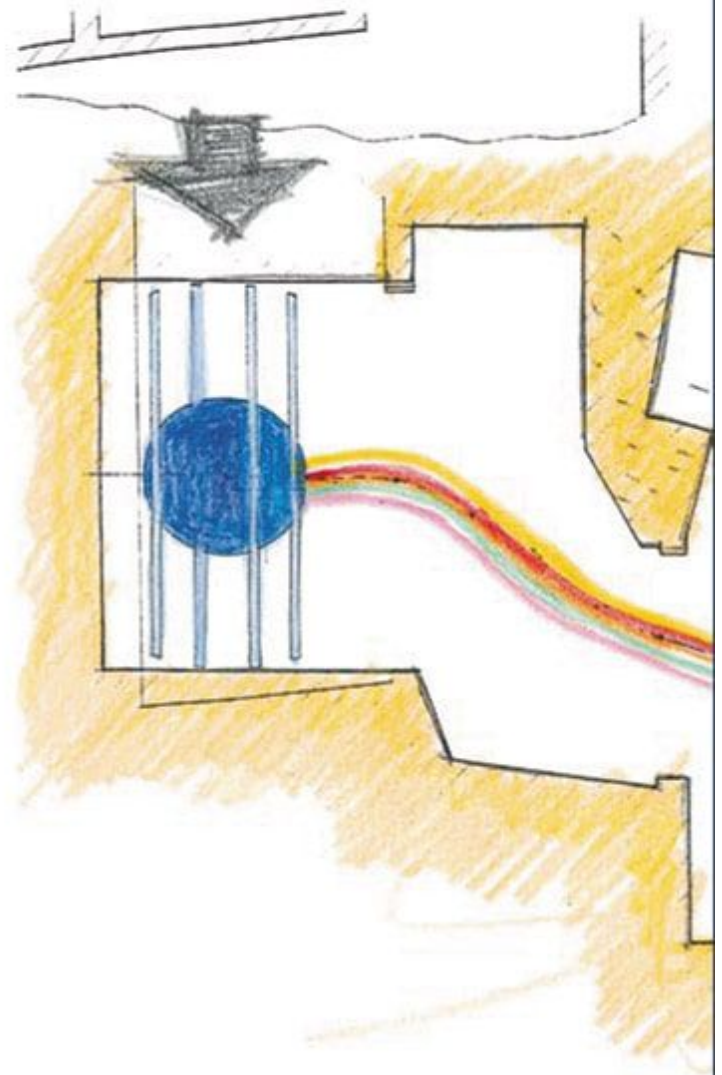
general plan

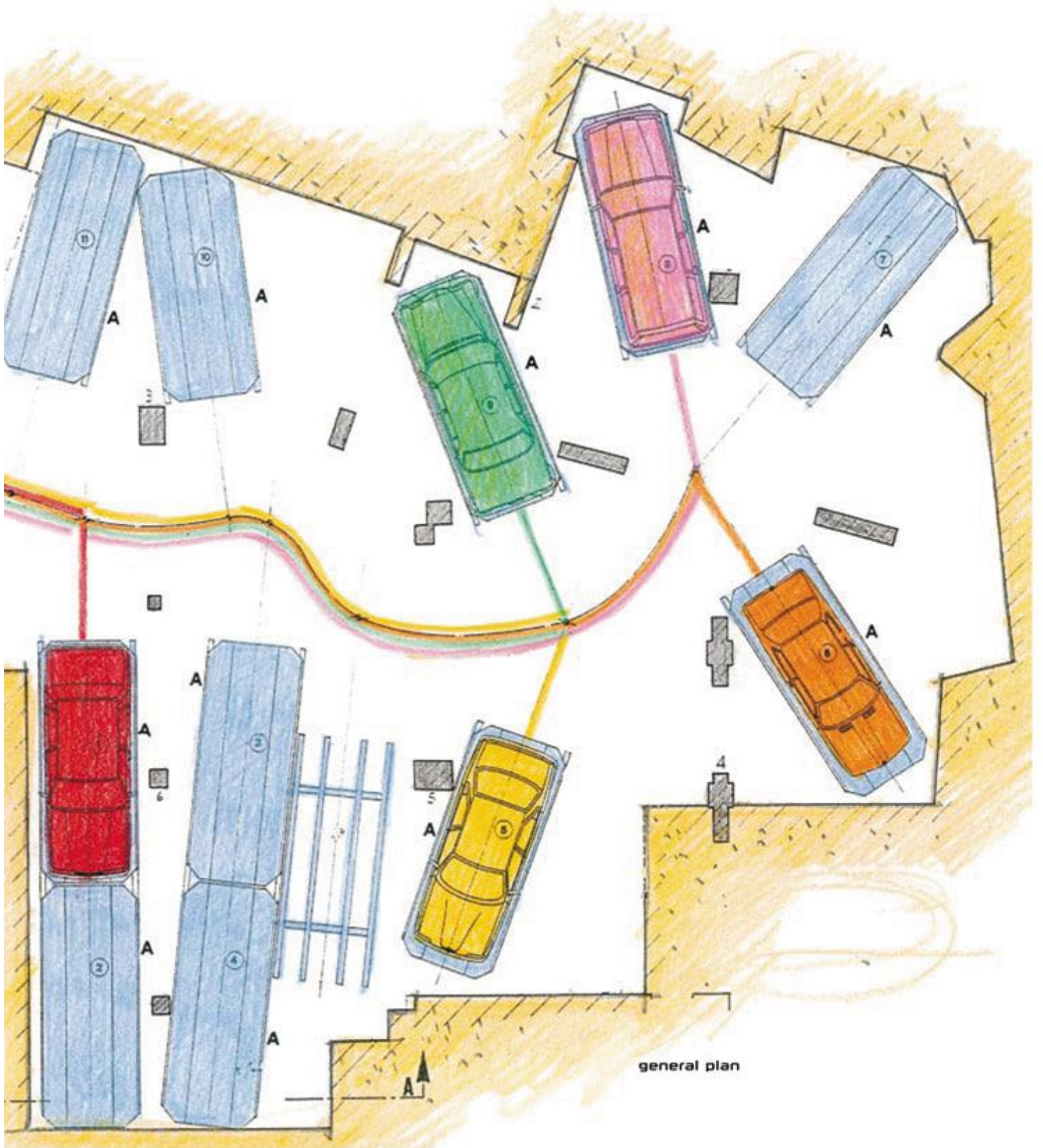
## PARKMATIC

Capacity	Motors	Standard Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Tree-phase 400V 50Hz 15Kw	5200	2200	~120

# E Car parking system consisting of robotised car-spaces

Twelve car-space module. This solution enables 12 cars to be stored on one level and is ideal for irregular areas or in the presence of support pillars.





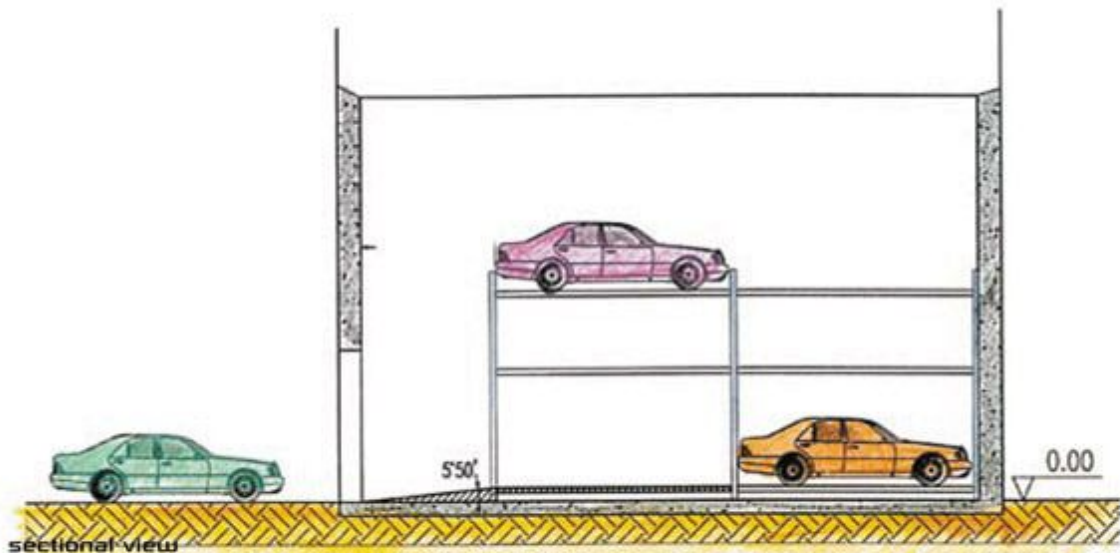
## PARKMATIC

Capacity	Motors	Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Three-phase 230/400V 50Hz 25Kw	5200	2200	220

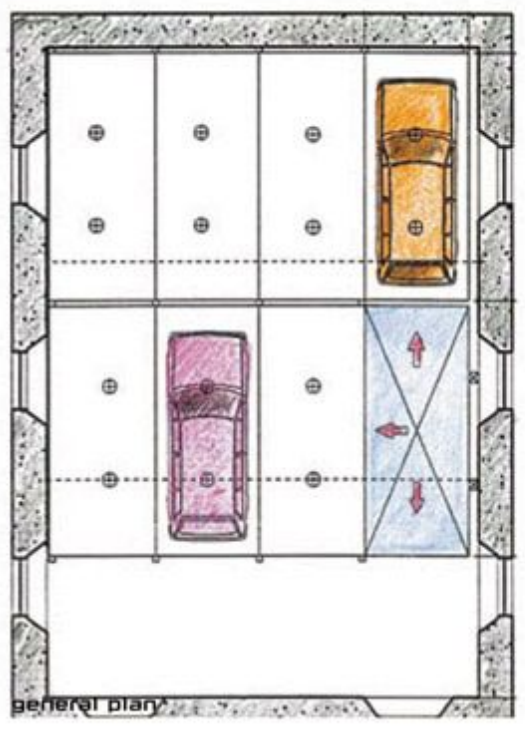
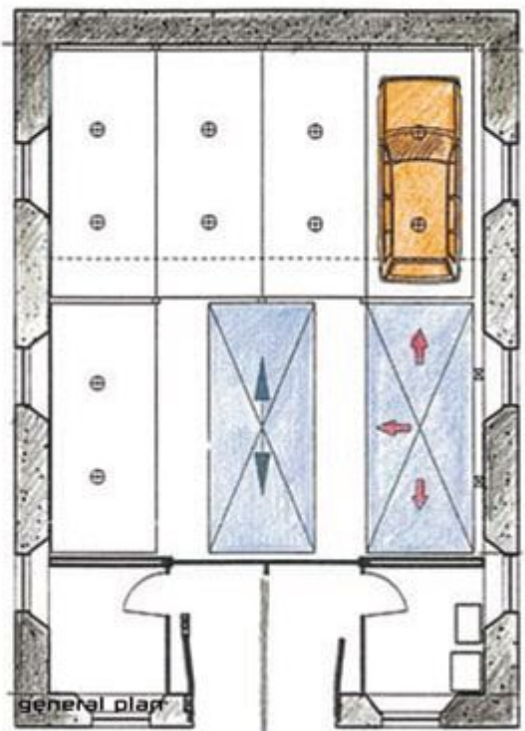
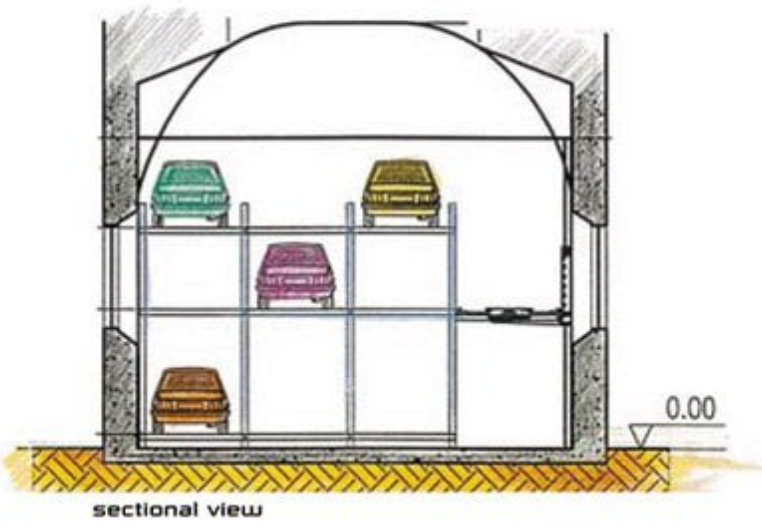


## System with horizontal car rotation on each floor

**Nineteen car-space module.** This solution enables 19 cars to be stored on three underground levels with an available area of 108 square metres. This solution is ideal for limited surface areas where the garage can be extended, above all in height.







## PARKMATIC

Capacity	Motors	Length	Width	Cycle time
Kg	Kw	mm	mm	sec
2000/2500	Three-phase 230/400V 50Hz 30Kw	5200	2200	120 - 200

The 'Parkmatic' parking system can meet the most diversified parking needs, from simple solutions with five car spaces to multilevel above ground and underground structures with hundreds of parking spaces.

The 'Parkmatic is custom-made', the brochures shows only few solutions and it is intended to give an indication of the hundreds of possible solutions we can develop.

Please contact us for any further information.



