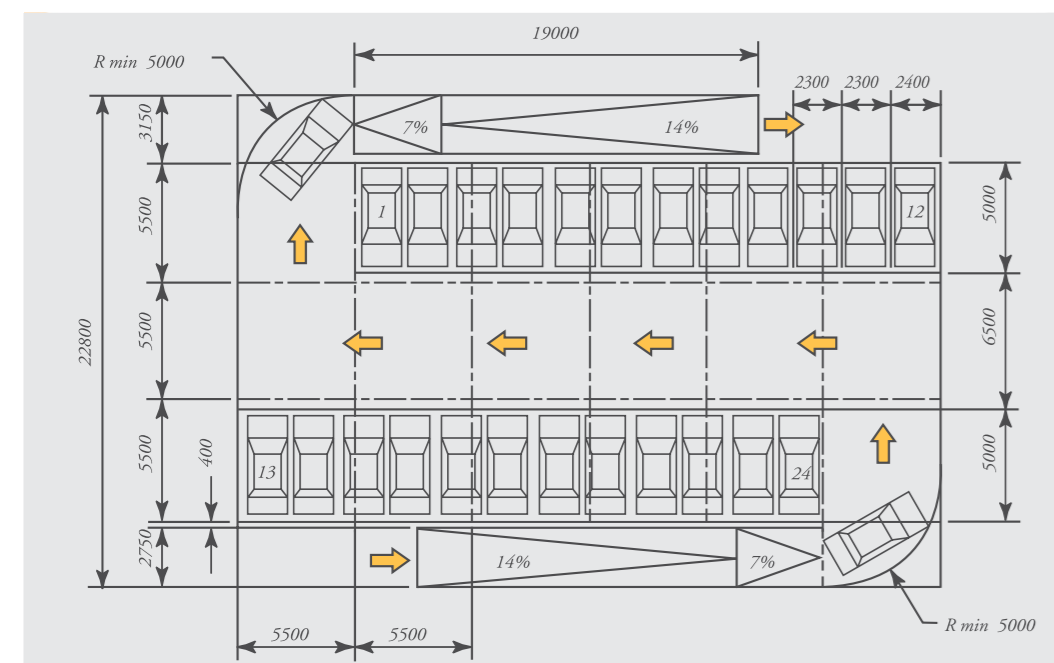
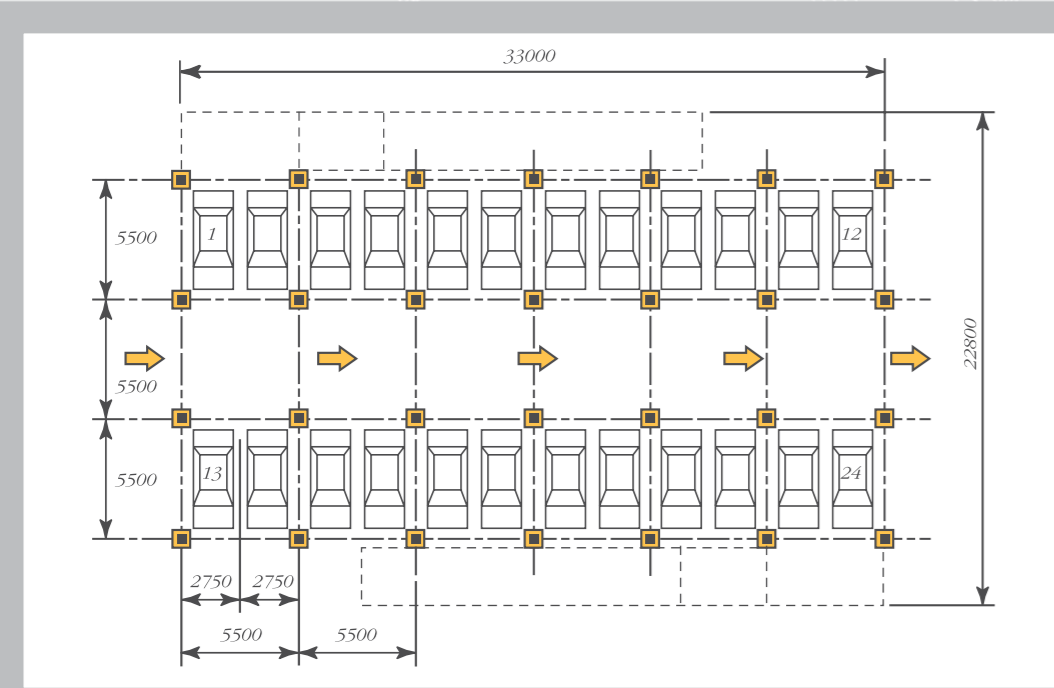


INTRAPARK™ car parking system

typical car arrangement

➔ Site Dimensions: 33 x 22,8m = 753m² ➔ Additional parking places : 24

Ground Floor: 24 cars

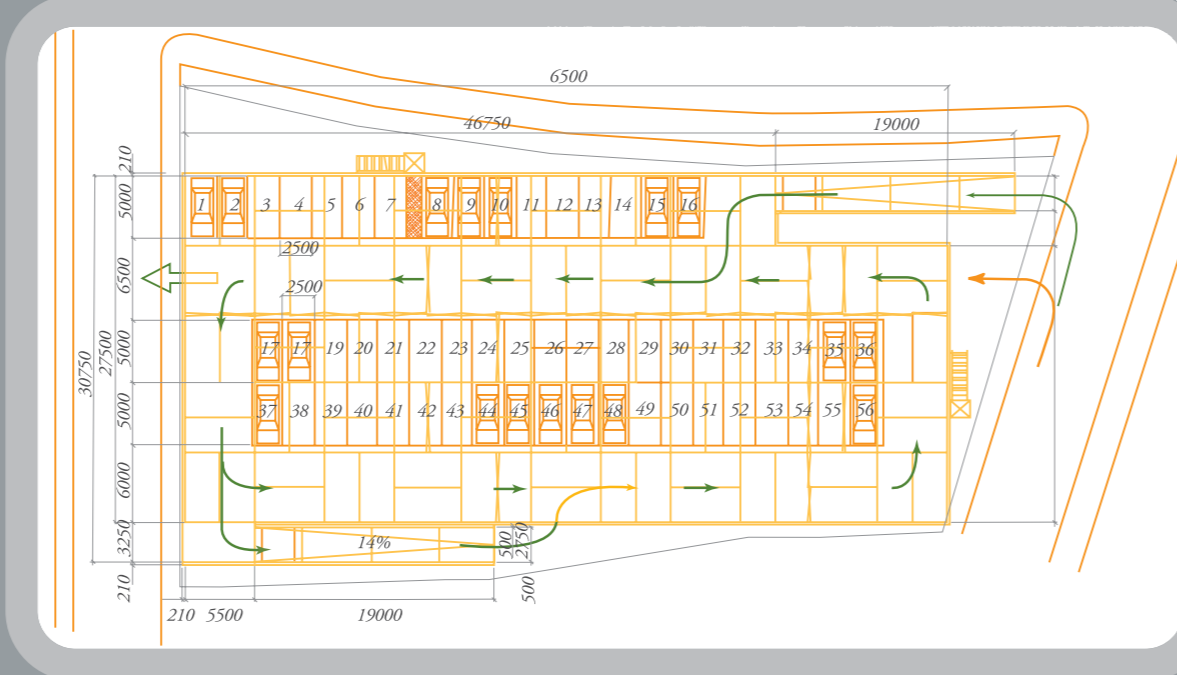


First Floor: 24 cars

Example:



Ground Floor: 61 cars



First Floor: 56 cars

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Single-Level Portable Modular Parking System

INTRAKAT
www.intrakat.eu

General

With the rapid rise in world population, overcrowding cities and tightening planning laws, it is becoming increasingly difficult to meet the ever growing demand for car parking. In light of this issue, INTRAKAT has developed INTRAPARK™, a revolutionary portable, modular parking system that can resolve short and long term parking problems efficiently, cost effectively and in an environmental friendly way.

The self-supported, prefabricated INTRAPARK™ parking system consists of prefabricated, standard parts, which are quickly assembled and erected on site, thus doubling the available parking space by providing an additional level in free areas of cities.

The structure of the system has been studied & designed by the Structural Engineering Department of INTRAKAT according to the latest European Technical standards and instructions.

certification standards

INTRAPARK™ has been certified to the latest European and British Technical Standards

europaan standards	british standards
EN 13814	BS 6399-1:1996
EN 13782	BS 5950-1:2000
DIN 4112	BS 6399-2:1997
EUROCODE EC 1 and EC 3	The Building regulations - A3



Basic Advantages of the INTRAPARK™ parking system:

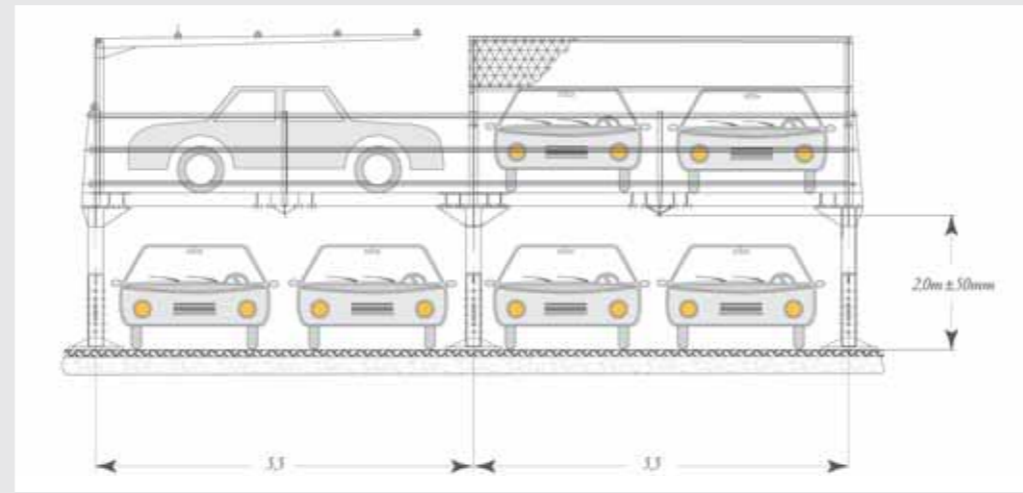
- ⇒ Short or long term parking solution
- ⇒ No need of permanent foundation
- ⇒ The ability to expand ground level car parks
- ⇒ Installation with uninterrupted parking operation of existing site
- ⇒ Short manufacturing time
- ⇒ Easy disassembly and reassembly on another site
- ⇒ Short erection time
- ⇒ Versatile and adaptable to different shapes of parking sites



Description of the INTRAPARK™ elements

INTRAPARK™ comprises of:

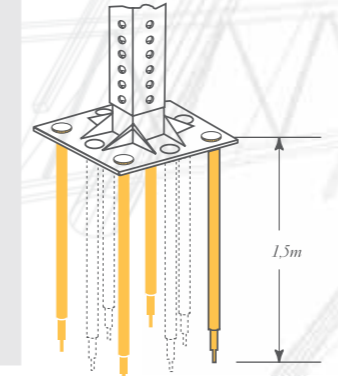
1. Supporting columns of adjustable height.
2. Self-supported, prefabricated platform elements with reinforced, anti-slipping, steel plates.
3. Ramp for driving up and down.
4. Staircase.
5. Metal rails around the perimeter of the platform.



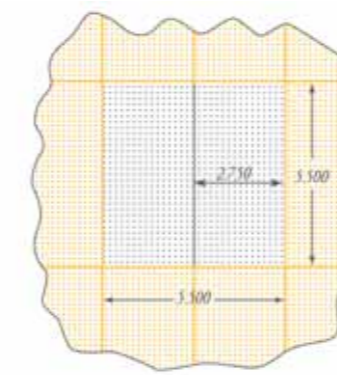
Depending on the system layout and the earthquake area where the system is erected, the number of these anchors varies from eight down to zero. However, for places with low seismic activity, anchors are not needed. Instead, a sheet of rubber or plastic or other friction increasing material is provided at the bottom surface of the support columns, which is in contact with the ground.

2. The platform elements

are the second main part of INTRAPARK™. The dimensions of platform elements are 2750mm (5500mm, dimensions that allow the easy transport to the erection site). Every platform element is manufactured from UPN profile (or bended steel plate), which creates an "artificial frame".



Along the length of the platform element supporting beams made by L-profile or bended steel plate are welded to the platform element. The top of the platform element is a 5mm thick steel plate with furrows, in order to eliminate slippage of vehicles and people.



4. Staircases

are placed at selected positions of the platform and are used for the easy access of the drivers and passengers to the platform.

5. Perimetric protection railing

is the fifth main part of INTRAPARK™. It is used to prevent possible falling of people and vehicles off the platform.



Furthermore, the railing is also a main static element of the system. The U-beam, together with the U-beam of the platform element shape a double U-beam (I-beam) to withstand the horizontal perimeter forces resulting from earthquake, wind loads, etc.

6. Sunroofs (Optional accessory)

are on top of INTRAPARK™. There is the central and the peripheral sunroof for all parking vehicles.



- ⇒ Adjustable columns to compensate for uneven ground
- ⇒ Sheltered parking
- ⇒ Long life, consistent quality, aesthetic perfection
- ⇒ Environmentally friendly
- ⇒ Portable
- ⇒ Resalable
- ⇒ Cost effective

Possible Applications of INTRAPARK™

- ⇒ Boarding stations (bus, train, airports etc)
- ⇒ Large scale events (sporting events, concerts, trade shows)
- ⇒ During construction or renovation of buildings or infrastructure
- ⇒ Supermarkets and shopping centres
- ⇒ Hospitals
- ⇒ Offices
- ⇒ Universities
- ⇒ Sporting venues
- ⇒ Conference Centres
- ⇒ Outdoor car show parking
- ⇒ Valet parking

In Detail:

1. The columns

of INTRAPARK™ consist of two square-sectioned hollow steel parts which slide into each other. This enables the easy (telescopic) adjustment of the height of the platform (± 50mm). In this way, the platform can be adjusted to remain horizontal irrespective of the slope of the supporting ground. There are three types of specially designed columns for central, edge and corner locations.

At the top of the column, there is a steel sheet which is welded and reinforced with specially designed steel plates. The sheet and the plates support the bending moment between the columns and the platform element.

The columns are specially designed so that they can withstand all the loads of the parked vehicles and people without requiring additional foundation on the ground.

Furthermore, in cases where there is high seismic activity, the base plate of the columns is bolted onto the ground with high strength steel anchors.



The platform elements are symmetrically designed so that they can be placed at all points of the parking structure and in different directions.



3. The ramp

is the third main part of INTRAPARK™, which is used for driving up and down the platform. The width of the ramp is 2750mm (for single-lane traffic) or 5000mm (or more), for double-lane traffic of cars.

The ramp comprises of prefabricated columns, platform elements, ramp parts and railings. The top of the ramp is covered with a steel plate with furrows in order to eliminate slippage of vehicles and people. The ramp is designed with an initial slope of 14% which is reduced to 7% and finally to 0%.

The sunroofs comprise of light columns, slightly inclined horizontal beams, purlings that are supported to the horizontal beams with U-bolts and a sun proof lightweight net.

Other Optional Accessories

- ⇒ Access control systems
- ⇒ Parking space availability systems
- ⇒ Vehicle height restriction systems
- ⇒ Signage
- ⇒ Customised ramps and staircases
- ⇒ Lifts
- ⇒ Travelators
- ⇒ Fire safety equipment
- ⇒ Lighting
- ⇒ Sun canopies
- ⇒ High strength steel anchors [for seismic zones]

