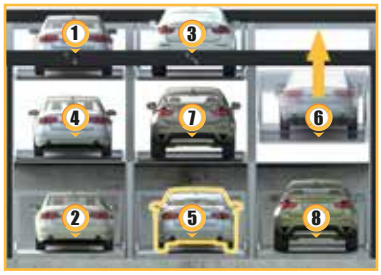
“ Parking with pleasure...”

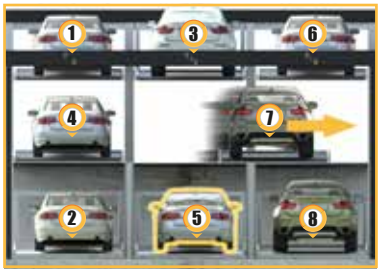
Parkolay

Parkonfor 111

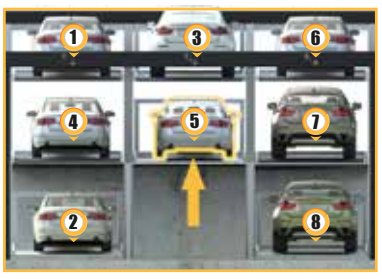
M. Multi-grid system = min. 2 grids (for 5 cars), max. 10 grids (for 29 cars)
Standard: Car weight max. 2.200 kg, wheel load: max. 550 kg
Option: Car weight max. 2.800 kg, wheel load: max. 700 kg



To retrieve #5 platform first #6 platform be lifted up.



Then platform #7 slides to the right.



Then platform #5 is thus lifted up to the entrance level.

Parkonfor 111 is a semi-automatic car parking system that allows vehicles to be parked independently and side-by-side on three parking floors, by taking advantage of the single empty space at the entrance level to allow for the sliding movement.

Since the **Parkonfor 111** is a pit-type parking system, the pit's safety is ensured by using sliding doors at the entrance level. Optionally, the doors and system can be controlled through remote controls.

ADVANTAGES »

- Comfortable and independent parking, without the need for any system operator.
- Unique maneuvering comfort at the entrance of the parking lot from the corridor; as the parking system doesn't include any columns between its platforms.
- Easy access to the platforms thanks to the low slope platforms' entry edges.
- Comfortable walking and driving thanks t the flat platform sheets.
- The capacity of the three-storey parking unit is up to 3 consecutive rows and 10 side-to-side grids.
- A hold-to-run or other optional automatic operation modes are in use, in addition to the user-friendly touch screen control panel.
- Wide access openings thanks to the optional multi-panel doors.

Parkonfor Series

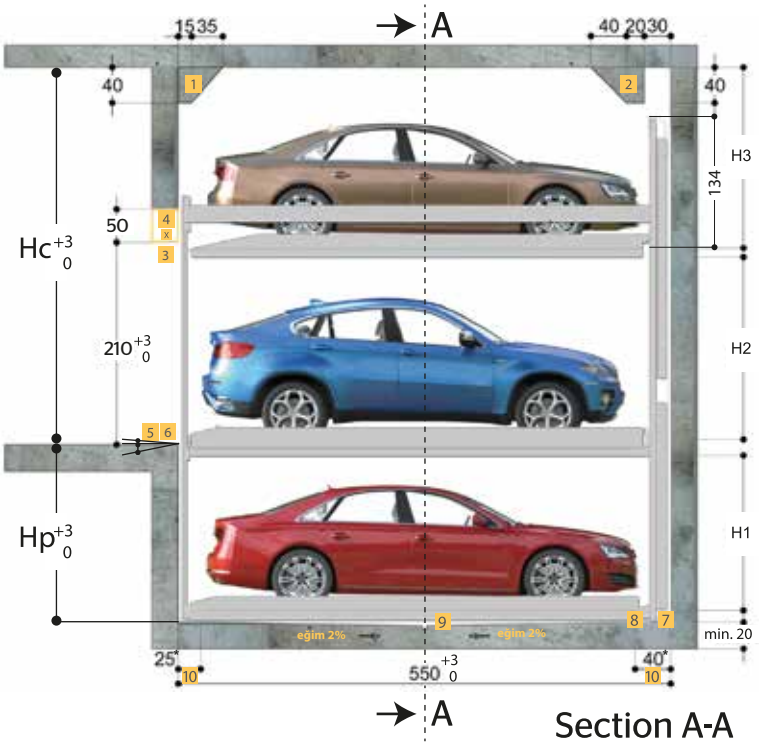
CE

Otomatik Otopark Sistemleri San. ve Tic. A. Ş.
Merkez Mah. Sardunya Cad. No:8, Taşköprü, Yalova
T. +90 850 3333 667
F. +90 226 353 2774
www.otomatik.com.tr
info@otomatik.com.tr

Parkolay

1 2 Free space.
3 Lintel; clear height, min 210 cm or according to regulations.

4 (X) for door, 35 cm



Section A-A

5 300 cm plain, max slope +3%/ -5%.
6 Yellow/ black marking 10 cm wide on the edge to parking pit according to ISO 3864 (by customer).

7 No haunches, voutes on the joints between ground and walls.
9 Drainage channel 10/ 2 cm, pump sump 50/ 50/ 20 cm. Slope 1-2% to drainage channel and pump sump. No water in area allowed.

8 Grounding: Potential equalization from system to foundation grounding according to DIN EN 60204. Foundation earth connector every 10 m (by customer).
10 There should be no slope in the area marked by * at both ends of the pit.

Points 1 et seq. are the responsibility of customer and must be noted. Unless otherwise stated they are executed, supplied and/ or connected by customer.

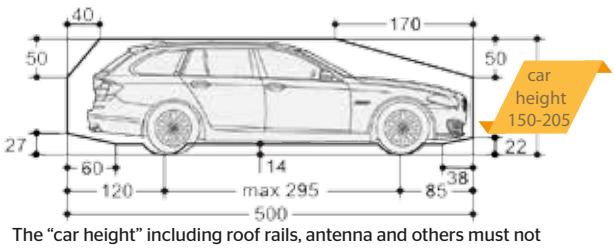
Example shows 3 grids, 8 spaces. 1 empty space in entrance level is necessary for movement.
4 grids = 11 spaces, 5 grids = 14 spaces, etc.
Each grid has one enter/exit access.

Variant For Car Height

Ceiling Height (Hc)	Car Height (cm)							
	CH_E	CH_U	Pit Depth Hp (cm)					
			175	190	195	200	225	230
			CH_L					
325	150	150	150	-	-	-	-	-
355	165	165	150	165	-	-	-	-
365	170	170	150	165	170	-	-	-
385	180	180	150	165	170	175	-	-
425	200	200	150	165	170	175	200	-
435	205	205	150	165	170	175	200	205

Clear Height (cm)
$H1 = CH_L + 5$
$H2 = CH_E + 5$
$H3 = CH_U + 5$

Car Profile Dimension »

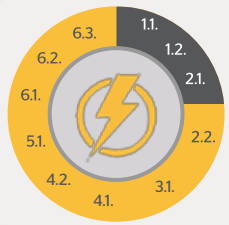


The “car height” including roof rails, antenna and others must not exceed the mentioned max car height dimension.

Electrical Supply

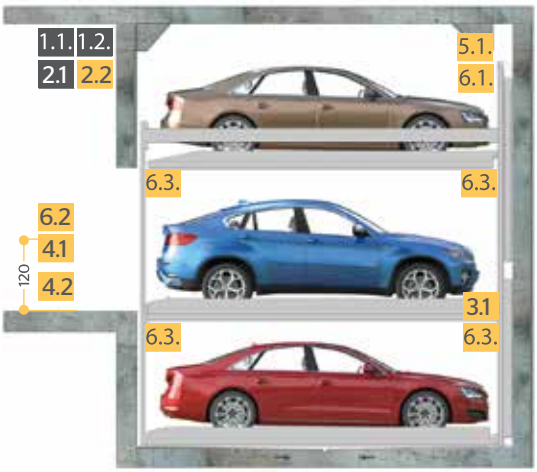
Parkolay

6.3 Control cable goes to locks .
6.2. Control cable goes to user interface panel.
6.1. Upper limit switch and platform valve control cable.
5.1. Control cable line goes to other side platform system
4.2. 3.0 kW, 400V, 50Hz hydrolic power unit for each system.
4.1. Touch panel for each sytem (prefably located in driver side so that being reachable, outside of system range motion). Its cable is organized as cable entrance under panel.
Remote control available as an optional



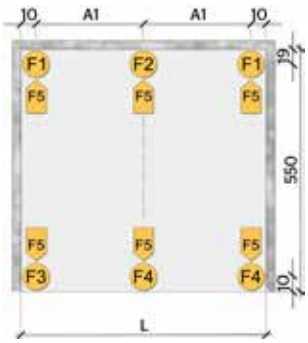
Customer

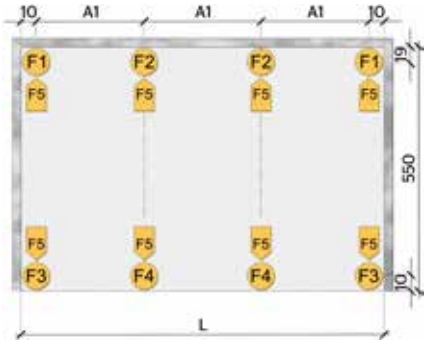
1.1. Electric power distribution panel.
1.2. 3 x 16 A slow character MCB-(Miniature Circuit Braker) for each control panel and hydrolic power unit set.
2.1. Equipotential earthing connection according to DIN TS EN 60204.
2.2. 5 x 4 mm2 supply cable (3.0 kW, 400V, 50Hz) goes from customer power distrubition panel to system control panel set for each control panel and hydrolic power unit
3.1. Motor, limit switch supply and earthing line for traveller platform.

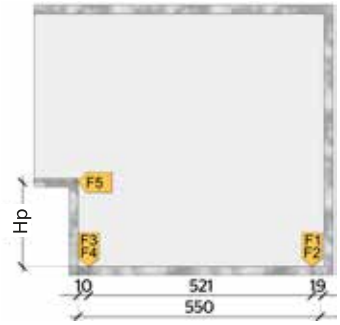


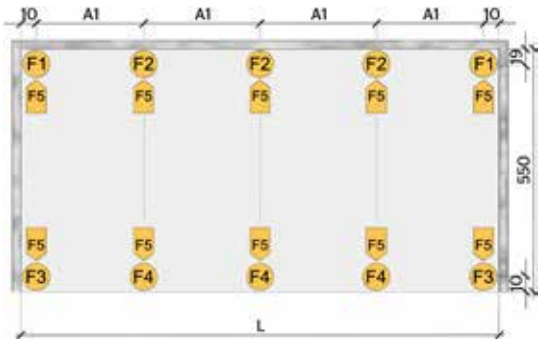
Switch cabinet: The switch cabinet must be placed outside the movement range of the system. The position should be adjacent to the system and provide overview to it. The size of switch cabinet is about 80 x 120 x 25 cm and there must be 100 cm free space in front of the cabinet for door opening and service operator.

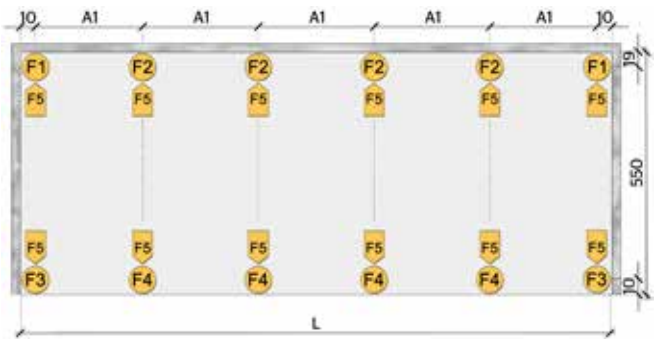
Structural Forces











Forces kN**	Max. car version kg	
	2.200	2.800*
F1	26	31
F2	48	57
F3***	33/41/51/60	39/49/60/71
F4	30	36
F5	±5	±7

*Option ** with car weight. *** 2/3/4/5 column gap F3 or (F3')

Dimensions (cm)	P_U	A1	L 2 grid	L 3 grid	L 4 grid	L 5 grid
	230	250	520	770	1020	1270
	240	260	540	800	1060	1320
	250	270	560	830	1100	1370
	260	280	580	860	1140	1420
	270	290	600	890	1180	1470

Advised platform width 250 cm. (190 cm net car width)

FOUNDATION

Systems are fixed by heavy duty anchor bolts with a drilling depth of approx. 14 cm.
Floor plate made of reinforced concrete, min thickness 18cm, quality minimum C20/ 25. Chemical anchors are option for water-proof concrete.

Otomatik Otopark Sistemleri San. ve Tic. A. Ş.
Merkez Mah. Sardunya Cad. No:8, Taşköprü, Yalova
T. +90 850 3333 667
F. +90 226 353 2774
www.otomatik.com.tr
info@otomatik.com.tr
Parkolay

System Width

Between walls

Picture shows 3 grids
3 grids = 8 spaces, min. is 2 grids

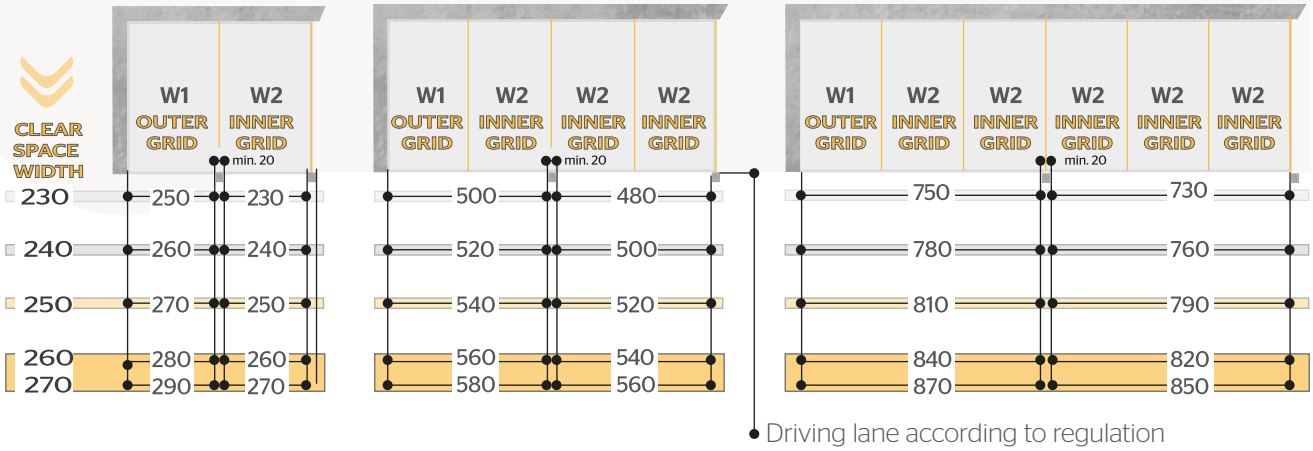
W1 Outer grid width +3/0 tolerance. It shouldn't be less than W1 dimensions.

Behind the pillars

Picture shows +2 grids
2 grids = 5 spaces

Picture shows +4 grids
4 grids = 11 spaces

Picture shows +6 grids
6 grids = 17 spaces



For comfortable walking

“A savior” flat platform surface design.

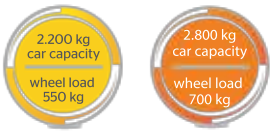
Users deserve more comfort. Our platform design offers comfort beyond your expectations.
The flat platforms provide much comfort while walking and driving on.
Whoever uses it like it:Elderly or young, male or female.

High heels are no longer an issue

Design: Safety & Comfort

STRONG BUT SMOOTH LOW BUT ROBUST »

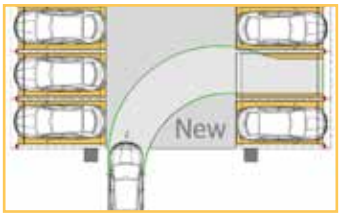
The profiles on both sides of the platform are strong due to them being constituted of one single long piece, in addition to their soft slope from low to high. This latter eliminated the risk of collision that may damage the vehicle and the wheels and provides easy and safe maneuvering. The teardrop pattern used at the entry ramp facilitates holding the vehicles’ wheels and prevents slipping. Due to their low height, the profiles on both sides are both robust and eliminate the risk of collision while opening the doors. Moreover, adjustable wheel stoppers are used to assist the driver in positioning the vehicle on the platform.



WE OFFER WHAT YOU NEED »

CAR CAPACITY AND DIMENSIONS »

Sliding roofs, bigger wheels, hifi systems, seat motors, and other individual options oftenly increase the weight of upper-middle class cars to more than 2000kg. Parallelly, Parkolay offers a standard 2.200 kg load capacity for each platform. Optionally the 2800kg load can be provided for heavier cars. In addition, Parkolay recommends an ideal platform width of 250cm and min. height of 160cm according to the increased dimensions of the new generation cars.



MORE COMFORT FOR PARK IN PROCESS »

The design offers recessed system columns to take profit from an increased driving lane. The driving lane and platform entry width are the deciding factors for the parking comfort. A plus of 50 cm driving lane can be equated with 10 cm parking space width. Practically the special design can increase the driving lane up to 100 cm. This can be valued like 20 cm parking place width on the left and right side of the driving lane.

Undoubtely, this valuable effect will increase the profit in the driving curve radius and thus will make the drive in process onto the parking space more convenient and comfortable.

CONTROL SOUND EMISSIONS »

Due to mechanical deficiencies, parking systems can cause high noise, which can negatively affect the health and concentration of the users. Parkolay takes many precautions in terms of noise abatement and restriction in the mechanical design and application of its products
The compliance to the sound insulation characteristics is therefore an important matter to consider, and applying them to the project requires a deep know-how in terms of R&D, planning and execution, since it leads to modifications in the overall design and dimensions.

CLEANING AND VALUE PRESERVATION »

A car parking system represents a major financial investment. Cleaning and care services preserve the system’s appearance, value, function and availability which lengthens its life time. In most cases, the main reason for the poor and rusty look is the platforms’ structure that is difficult to clean and thus the necessary processes are often neglected. Parkolay has developed a practical platform design that facilitates the deep professional cleaning and maintenance of the systems.

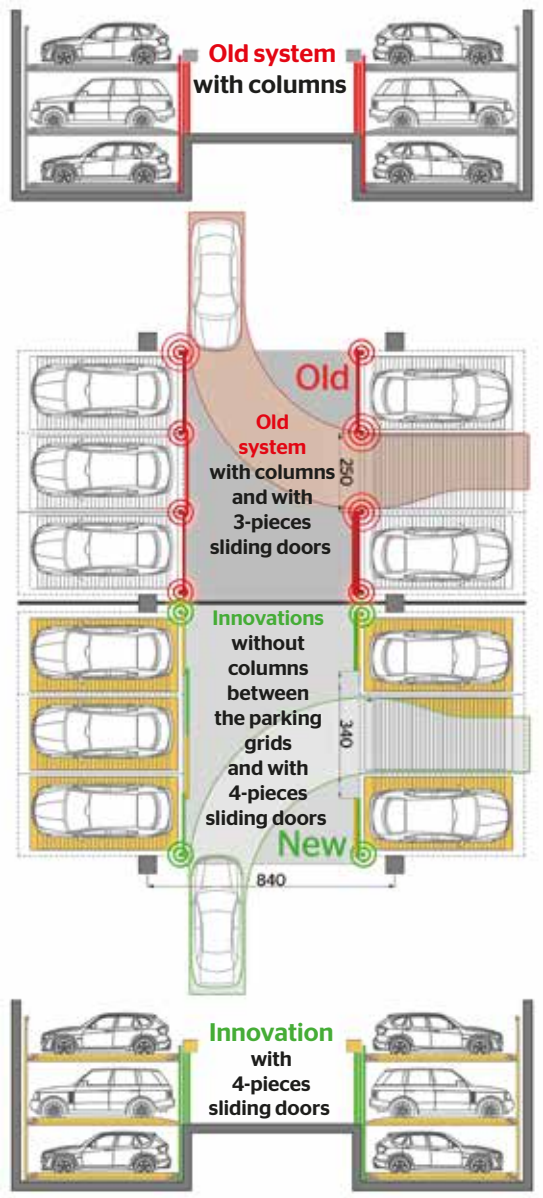
Otomatik Otopark Sistemleri San. ve Tic. A. Ş.
Merkez Mah. Sardunya Cad. No:8, Taşköprü, Yalova
T. +90 850 3333 667
F. +90 226 353 2774
www.otomatik.com.tr
info@otomatik.com.tr
Parkolay

Parking Comfort Advantage »

NO COLUMNS BETWEEN THE PARKING GRIDS

The most valuable feature of this system is the non-existence of columns in-between the parking spaces. The system's columns therefore limit the units only at both ends of the system.

The front span of the system can be a maximum of 3 grids, for which there will only be two columns at both ends of the system instead of 4 columns. This concept can be considered when the parking area is located on the open public area or when the building pillars are designed according to the conventional parking.



MORE COMFORT FOR PARK-IN PROCESS

Having the columns only at the ends of the systems allows for an increased driving lane, which is a prior deciding factor for the parking comfort.

This concept can be considered when the parking area is located on the open public area or when the building pillars are designed according to the conventional parking.

ADVANTAGES OF THE INNOVATIONS

- More drive in comfort.
- Better curve radius.
- Faster drive in process.
- More safety by less collision risks (missing the front columns).
- More drive in width.
- Optical and practical increased driving lane.

User oriented philosophy - Parking with pleasure-

Undoubtely, this valuable effect will increase the profit in the driving curve radius and thus will make the drive in process onto the parking space more convenient and comfortable.

Critical Comment: LIMITED USER COMFORT WHEN COLUMNS IN FRONT.

Drivers still suffer today about the parking spaces had been built decades ago. Whether they are single garages, quarter garages, underground garages or parking lots: The problem is always having too narrow drive in space, either limited by the structure or the pillars. And this problem is now more serious with the today's increased car width. The trend is to build wider pillar spans, without pillars, wide entrances and spaces without limitations.

A woman recently said: "Imagine a parking space with 230 cm width and limited on entrance with fixed columns. How to enter daily, when the size of my BMW 3-series with mirrors is just 209 cm. There are just 10 cm left on each side and how to drive in from the driving lane by 90 degrees?

Sliding Doors

The existing pit in **Parkonfor 111** must be protected by shutterdoors for security purposes according to EN 14010 standard. Door control is integrated with all the system operation; it can only be opened when selected parking platform reaches the entry / exit position.

The revision, maintenance or system requirements that may occur according to local regulations are the responsibility of the customer and the necessary technical requirements must be reported to the supplier in advance.

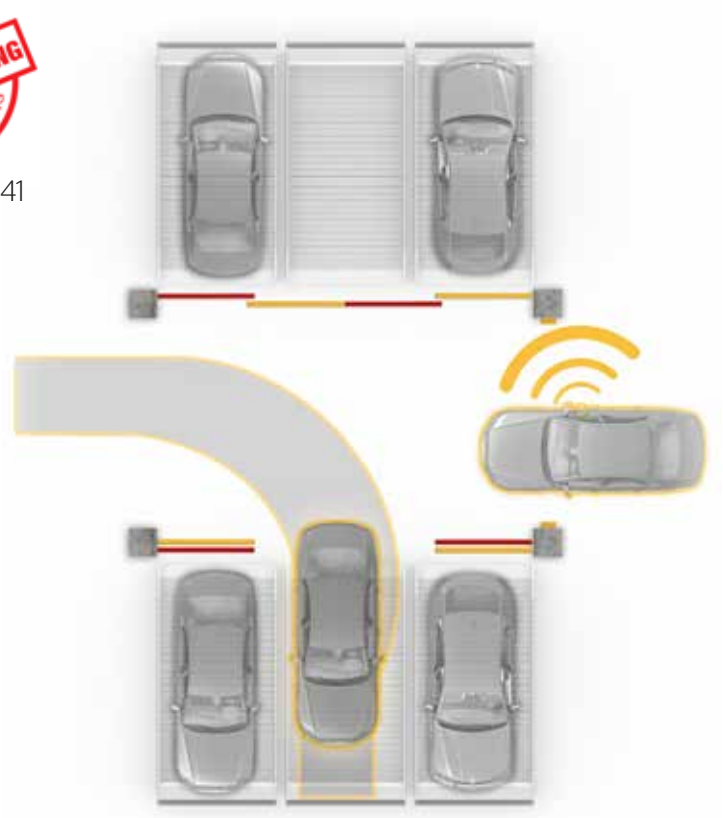
DOOR TYPES

Manually operated
Electrical drive
Optional remote control

MULTI-PART SLIDING DOORS

3 grid : 4-piece sliding doors
2 grid: 3-piece sliding doors

2018-GE-213441



PARKING COMFORT IS ENHANCED BY THE MULTI SLIDING DOORS AND COLUMN-FREE DESIGN, WHICH PROVIDE MORE MANOEUVRING SPACE.

Control Panel

The user-friendly software of the ergonomically designed control panel allows you to easily call your parking space from the system. The movement of the parking spaces and door panels is managed by the software by entering the parking space's number on the control panel or by using the bluetooth remote control.

Otomatik Otopark Sistemleri San. ve Tic. A. Ş.
Merkez Mah. Sardunya Cad. No:8, Taşköprü, Yalova
T. +90 850 3333 667
F. +90 226 353 2774
www.otomatik.com.tr
info@otomatik.com.tr

Parkolay

Corossion protection and Prevention

Besides the maintenance, the systems have to be cleaned regularly. This is for the systems, at least for the platforms as well as for all parts being exposed to corrosive substances, e.g. salt water, dirt, car fluids, sand, etc..
Garages also have to be ventilated and deaerated, The base plates have to be dewatered and dry.

Marking band

ISO 3864

According to DIN EN 14010/ ISO 3864 a yellow/ black 10cm wide safety warning band must be placed at the edge of the parking area by customer.

Safety fences DIN EN ISO 13857

According to DIN EN ISO 13857 safety fences have to be provided by customer for pathways directly around the parking boxes (besides or behind the units).
Also during construction.

Fire safety

Designing fire safety in the proposed garage or area must comply with local/ regional regulations. The compliance must be managed by customer. Depending on the location and the fire department there might be very dfferent and specific requirements. The supplier has to be in informed in advance by the customer.

Dewatering

Dewatering involves controlling water in the system area with possibility of pumping it out of a water collecting pump sump. Water may occur from snow on the car, leaking shell, ground water, wet cleaning the systems (to prevent corossion) or others. It can be solved by a drainage system with pump sump (50 x 50 x 20 cm).

Car development

The size and weight of new generation of cars have been increased due to the extra equipment, which means that the weight of upper middle class cars oftenly exceed 2.000 kg. Parallelly to that, the manufacturer offers a 2.200 kg load capacity as standard. Optionally, 2.800 kg can be provided for heavier cars. In this case, the manufacturer recommends as ideal platform width of 250 cm and min. height of 160 cm according to the increased dimensions of the new generation cars.

Sound insulation EN 14366, DIN 4109 VDI 4100

"Sound insulation in buildings". According to the german norm a value of 30 dB(A) is allowed in living quarters. This can be fullfilled with: option noise protection according to offer supplier. Sound insulation of building R'w = 57 dB. Surrounding walls/ ceilings (e.g. monolithic and rigid) of parking should be made of min m' = 300/ 400 kg/ m².

The adjacent critical building element should be min m' = 580 kg/ m. User noises are created by individual users. These can be from driving up/ down the platforms, slamming of vehicle doors, motor and brake noises. They are not subject to the limit. "Increased sound insulation" is made on special offer and discussion and needs more space.

MINIMUM DIMENSIONS & TOLERANCES »

Shown dimensions are minimum. Tolerances according to VOB part C (DIN 18330 and 18331) and the DIN 18202 have to be considered additionally. Tolerances for space requirements are +3 cm/ 0 cm. Dimensions are in cm.

ENVIRONMENTAL RANGE »

Temperature range -10 to +40° C. Relative humidity 50% at maximum outside temperature of +40° C.

LIGHTING »

There must be sufficient ligthing in the parking garage and parking area according to regulations, supplied by customer.

CE AND CONFORMITY »

The systems correspond to DIN EN 14010 and the EC Machinery Directive 2006/42/EC.

RIGHTS TO CHANGE »

The manufacturer reserves the right to change, alter, modify parts, groups or general design in procedures or standards due to technical progress.

HYDRAULIC POWER UNITS »

Several units/block can be operated with one power unit. The power unit(s) need(s) additional space (depth 35 cm), which has to be in/ near the parking area and should be clarified with the drawing approval (e.g. wall recesses, moving with platform, others).

The general planning/supply of the garage with the building structure, statics, tolerances, free spaces, wall cutting, drainage, noise protection, fire demands, electricity, grounding, driveway, illumination, ventilation, numbering of spaces, yellow-black marking band, safety fences and others has to be arranged according to local requirements by the customer and must be also in accordance with the delivery/ requests of the parking system supplier.

B7C010/20812-EN Parkonfor 111

Otomatik Otopark Sistemleri San. ve Tic. A. Ş.
Merkez Mah. Sardunya Cad. No:8, Taşköprü, Yalova
T. +90 850 3333 667
F. +90 226 353 2774
www.otomatik.com.tr
info@otomatik.com.tr
Parkolay