



Nussbaum

TRANSVERSE SLIDING PLATFORMS N6301

THE PERFECT SOLUTION TO OPTIMIZE PARKING SPACE EVEN BEHIND PILLARS AND CORNERS



PARKING PLATFORMS

PARKING PLATFORMS SERIES

SHORT DESCRIPTION

- INDEPENDENT PARKING FOR CARS IN ROWS ONE AFTER ANOTHER
- MAXIMUM OPTIMIZATION OF THE SPACE: ARRANGEMENT OF THE PLATFORMS IN DRIVE LANES IN ROWS AND ALSO BEHIND PILLARS AND CORNERS, FOR UP TO 100 % MORE PARKING SPACES
- MODULAR CONSTRUCTION: DEPENDING ON THE CONDITIONS ON SITE, IT CAN BE POSSIBLE TO ADD SEGMENTS AT WILL
- LOAD PER PARKING SPACE: STANDARD 2.000 KG
OPTIONAL UP TO 2.300 KG OR 2.600 KG

APPLICATION

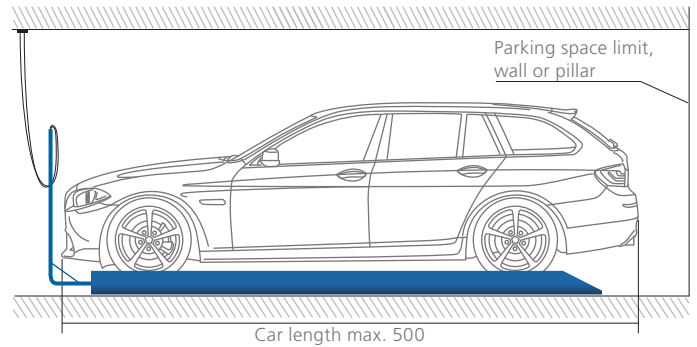
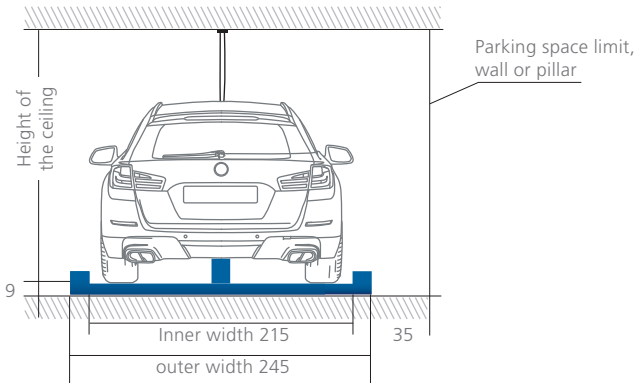
- FOR INTERIORS
- ONE AND MULTI-FAMILY DWELLINGS
- HOTELS
- OFFICE BUILDINGS
- CONDOMINIUMS
- COMMERCIALS
- SUBSTITUTION OF OLD SYSTEMS
FOR PERMANENT USERS ONLY

Note:
It must be possible to control the whole system from the control unit, otherwise it will be necessary to install additional gates. Flashing lights will be installed on the ceiling.



TECHNICAL DATA

TRANSVERSE SLIDING PLATFORMS N6301 FOR 1 CAR



The transverse sliding platforms reduce the traffic area and use space behind pillars and on corners.

The platforms are electrically driven and run on rails. They can be combined in several parking rows one behind another.

One empty space in each row allows the cars to reach the row(s) that are located behind.

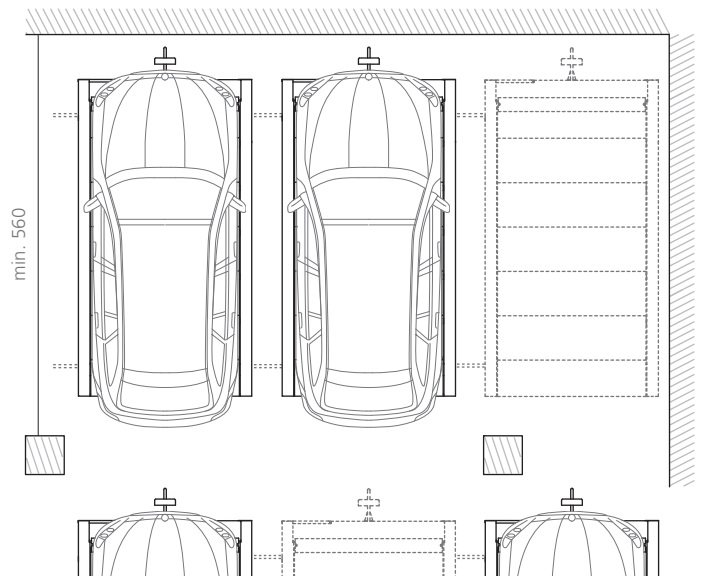
Hanging cables allow the current supply to reach the platform's motor (optionally instead of hanging cables: current bus bar).

One drive wheel is on each rail.

Direkt drive, without additional chains or chain wheels.

With low drive-on height.

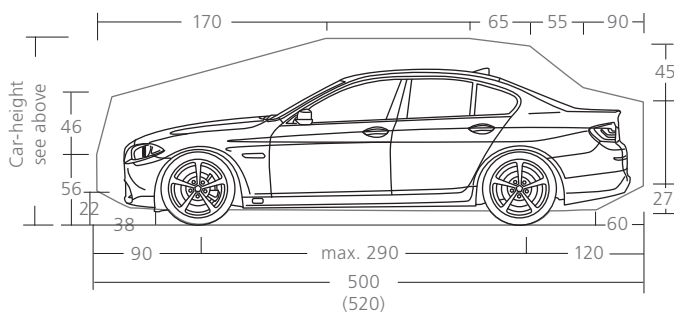
Operation: up to 2 platforms with key-switch.
From 3 platforms with free programmable PC-touch screen



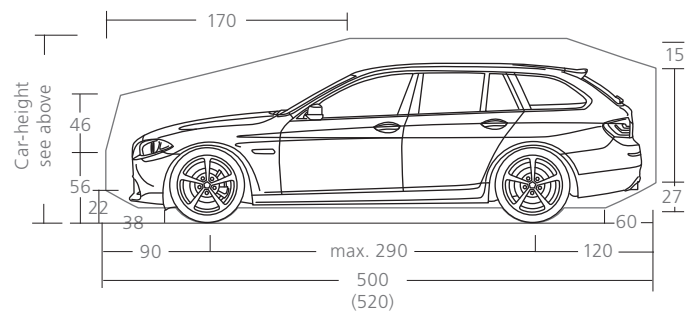
INNER WIDTH	OUTER WIDTH
195	225
205	235
215	245
225	255

The car-height must be at least 10 cm lower than the ceiling height.
Load per parking space: max. 2.000kg, wheel load: max. 500kg. Optionally up to 2.300kg, wheel load max. 575 kg or up to 2.600kg, wheel load max. 650 kg.
Concrete: at least 18, C25, floor evenness acc. to DIN 18202 table 3, line 3.
All dimensions are in cm. All dimensions are minimal dimensions.

VEHICLE DATA: STANDARD CAR



VEHICLE DATA: STANDARD ESTATE

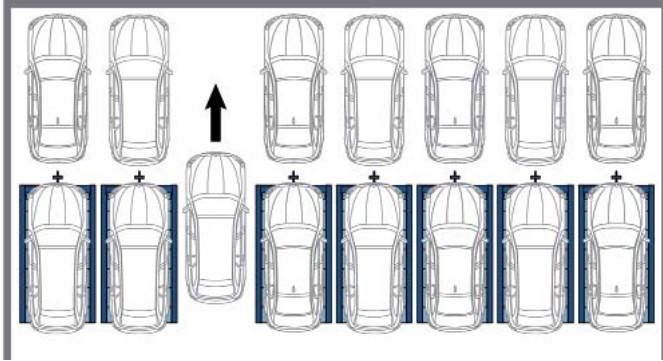


Note:

The shown and explained case examples show only some possibilities to use the platforms. Feel free to contact us in order to get the best project-based support for your building situation.

FUNCTION AND CASE EXAMPLES

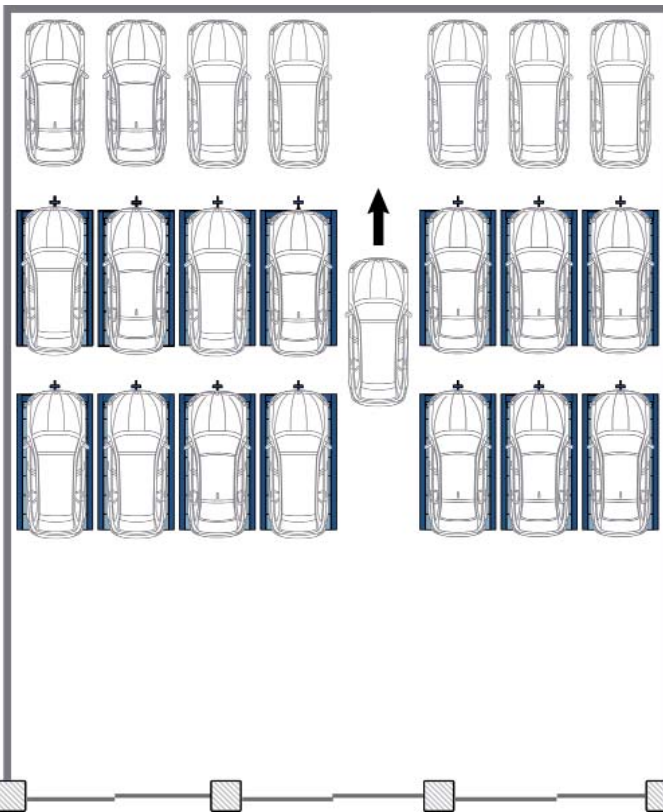
CASE EXAMPLE 1: 1-ROWED



Combination: one platform next to another and one behind another

It is possible to combine in rows not only platforms but also to install several rows one behind another. The necessary empty space per row allows to slide the platforms and create a passage between them. This way the cars can drive in the space between the platforms until the last row and park.

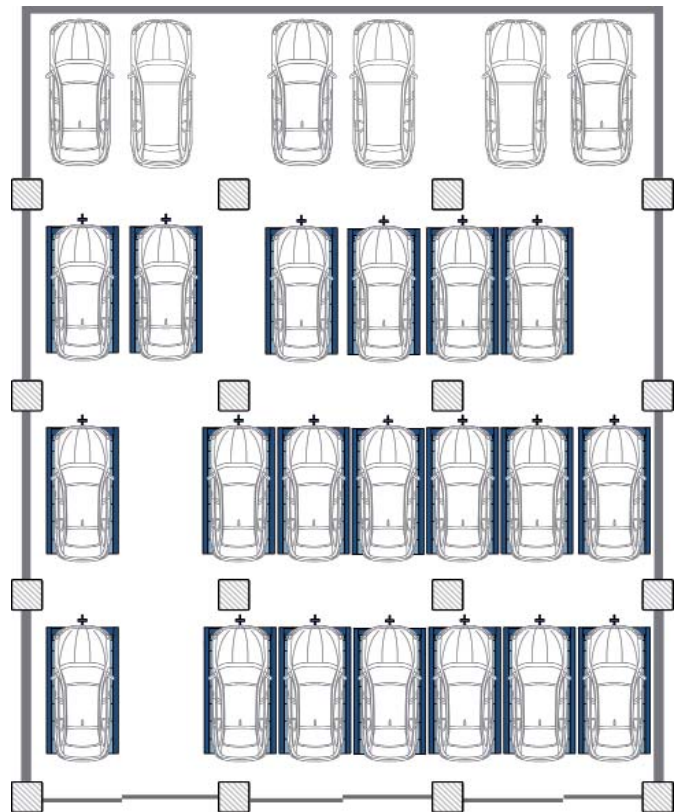
CASE EXAMPLE 2: 2-ROWED



Combination: one platform next to another and one behind another

It is possible to combine in rows not only platforms but also to install several rows one behind another. The necessary empty space per row allows to slide the platforms and create a passage between them. This way the cars can drive in the space between the platforms until the last row and park.

CASE EXAMPLE 3: 3-ROWED



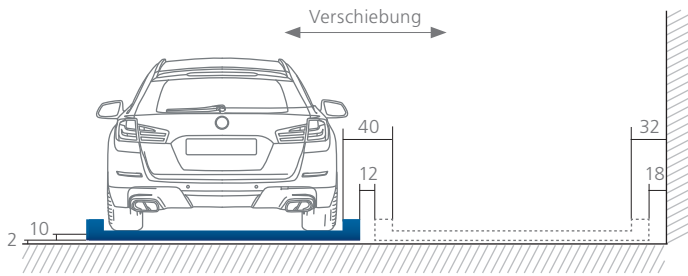
Intermediate stops

Sometimes it can be necessary to exploit intermediate stops within the single sliding movements, in order to move around pillars and other obstacles.

SAFETY DISTANCES AND TOLERANCES TO FLOOR EVENNESS

COMPLIANCE WITH THE SAFETY DISTANCES ACC. TO DIN

Distance from the side wall and between platforms:

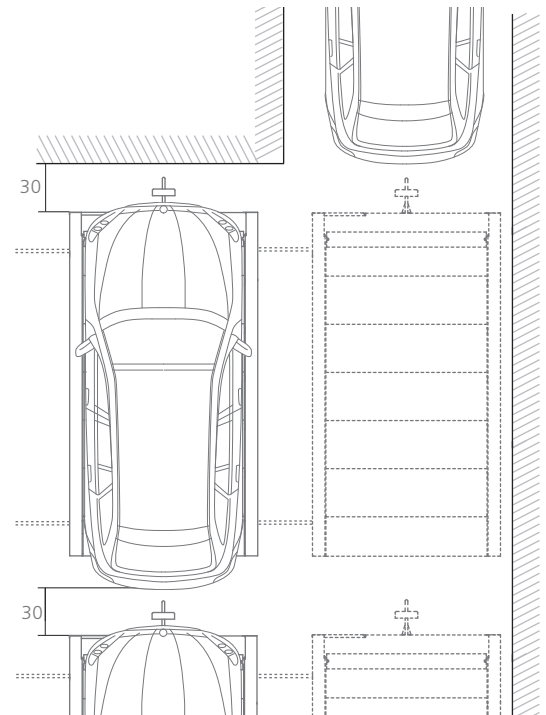


Abstract from DIN EN 14010: 2009-12, 5.9: „Safety of machinery - Equipment for power driven parking of motor vehicles“

If the above mentioned safety distances cannot be fulfilled due to the building shape, or the possibility of controlling the parking facility from the control unit is impeded, then the danger areas between moving parts or moving and fixed parts in a range from 0.3 m up to 1,5 m above the ground must be protected by employing safety devices, such as sensitive contact edges, light barriers, and laser scanners. This is not valid for buffers and coupling devices.

Drawings from DIN EN 14010:2009-12, Image C.2 - Safety distances acc. to 5.8.4.2

Distance from the back wall and between cars:



FLOOR EVENNESS TOLERANCES

Acc. to DIN EN 14010, the max. safety distance between the lowest part of the parking platform and the floor shall not be more than 2cm. Therefore it is necessary to ensure that the floor features the necessary evenness (suggested material: screed). Please comply with the driving lane's floor evenness tolerances acc. to DIN 18202, tab. 3, line 3.

Excerpt from DIN 18202, table 3:

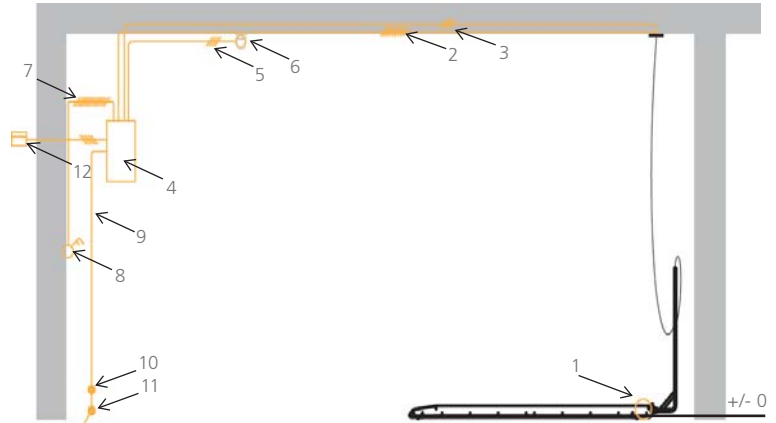
COLUMN	1	2	4	10	13	14
GROUP	APPLICABLE TO	Position deviations (limit values), in mm, for distances between measuring points, in m, up to				
		0,1	1	4	10	15
2	unfinished upper surfaces of floors, subfloors and concrete bases subject to more stringent requirements (e.g. to receive floating screed, industrial floors, tile flooring and bonded screed), and finished surfaces for minor purposes (e.g. in storerooms or basements)	5	8	12	15	20
3	finished floors (e.g. screed as wearing courses or screed to receive a flooring, trowelled or bonded floorings)	2	4	10	12	15

ELECTRICAL INSTALLATION AND FOUNDATION LOADS

Services covered by the NUSSBAUM Company

Installation diagram

POS.	QTY.	DESCRIPTION
1	1x	Electrical power unit 0,25 kW, 400V/0,8A IP44
2	1x	Control line 9x1 mm ² Ölflex classic 110
3	1x	Motor line 4x1 mm ² Ölflex classic 110
4	1x	Switch cabinet IP 66 Rittal
5	1x	Control line 4x1 mm ² Ölflex classic 110
6	1x	Flashlight with self-monitoring
7	1x	Control line 12x1 mm ²
	1x	from 3 latforms: Bus-cable 1x2x0,22 mm ²
8	1x	Control unit
9	1x	Supply line 5x 2,5mm ² (3 PH+N+PE) with marked leads + protective earth conductor



Services to be provided by the customer

POS.	QTY.	DESCRIPTION	POSITION	FREQUENCY
10	1x	Blade fuse or circuit breaker 3x 16A, slow acc. to DIN VDE 0100 part 430	in the supply line	1x each system
11	1x	Equipotential bonding according to DIN EN 60204 from the connector of the foundation earth electrodes to the system		1x each system
12	1x	Electricity meter	to the switch cabinet	1x each system

Positions 1 to 9 are included in the scope of delivery of the NUSSBAUM company, unless otherwise agreed in the offer or in the contract.

FOUNDATION LOADS AND CONSTRUCTION

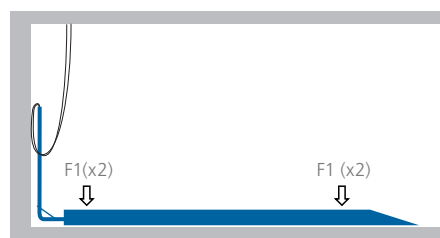
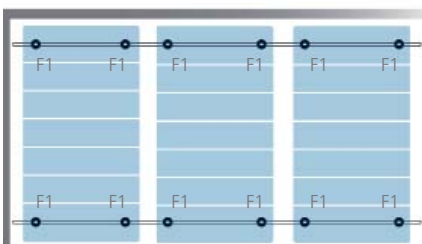
Foundation and pit walls must be planned so that they can absorb the loads of the parking system according to the schematic diagram shown on the right. If necessary, in case of heightened foundation requirements, the chemical anchors must be provided by the client (deliverable by Nussbaum as option as well). The borehole for the footplates of the parking system must be 18 cm deep.

Foundation, walls and ceilings shall be realized by the customer and completed prior to start the assembly and must be true to size, clean and dry. Floor and walls shall be made of armoured concrete. Concrete quality shall be at least: C25/30.

Ground view

Side view

Load details



LOAD PER PARKING SPACE	LOAD F1 (Rolls)
2.000 Kg	8
	kN
2.300 Kg	9
	kN
2.600 Kg	10
	kN

The information for the load F1 are to be multiplied for 4 rolls.

STANDARD FEATURES

Included in the scope of delivery

COMPONENT PARTS

transversal sliding platforms with guide rails, with electrical drive unit and control. In dead man's control.

SYSTEM'S MEASUREMENTS

Parking space length: 500 cm
 Parking space width: 195 cm
 System width incl. side carriers: 225 cm
 Load per parking space up to 2.000 kg.

DRIVING SHEETS



Platforms with side carriers and driving sheets made of trapezoidal sheet.

CONTROL UNIT



Key-switch with buttons for the movement's direction and emergency-off in dead man's control with brief operating instructions and cabling.

POWER UNIT

Power unit 0,25 kW, 400V/0,8A integrated in the platform front carrier.

Dimensions of the switch cabinet: from 60 x 22 x 80 cm, depending on the amount of the platforms.

SLIDING RAILS



The driving rails are bolted directly to the floor of the garage during the installation of the parking platform. Attention: for the installation of several transverse sliding platforms in one row please mind that it is allowed to connect to one control unit only the platforms that are within a radius of max. 20 m (please see DIN EN 14010, article 5.8.4.2), so that it is possible to control the whole movement of the platforms from the control element's position.

CORROSION PROTECTION

C3-Line

For Regions with average snowfall and humidity levels (the standard in Germany).

C2-Line

Recommended only for regions with small or no snowfall and low humidity levels.

NOTE

We suggest periodical maintenance, care and cleaning. Take advantage of NUSSBAUM maintenance agreements.

ELECTRICAL INSTALLATION

For a list of services and interfaces please see the respective table in this brochure.

DOCUMENTATION

Brief operating instructions (fastened to the control unit), documentation (test book and operating instructions).

SAFETY DEVICES

- Fastening of the parking system and hydraulic power unit with stud-bolts, electrical cabling fastened with impact dowels.



- Wedge to help position the vehicle.
- Light barrier at the platform entrance.
- Flashing lights, installed at the ceiling, that flashes and warns when the platform moves.

Note:

- Safety fences against shear and crushing points are a priority and must be provided by the customer.

OPTIONS AND EXTRA EQUIPMENT

Available upon request - here are illustrated only some examples...

NOTE

We suggest periodical maintenance, care and cleaning. Take advantage of NUSSBAUM maintenance agreements.

SYSTEM'S MEASUREMENTS

Parking space length: 520cm

Parking space width: from 195 to 220 cm

Befestigung Parkanlage mit Klebeankern bei erhöhten Fundamentanforderungen.

CAR WEIGHT

Stellplatzbelastung bis 2.300 kg oder maximal 2.600 kg.

ALUMINIUM: PREMIUM-COVERING



Upper platforms with Aluminium-bulb plate driving sheets.

MORE WALKING COMFORT: CATWALKS



Catwalk on trapez. sheet for more walking comfort

Catwalks for more walking comfort on trapezoidal sheet

Positioning on the left side. 1,5 mm zined sheets, embossed surface. The catwalk will be screwed to the driving sheet.

CORROSION PROTECTION

C3-Line (outside of Germany)

for regions with snow and average levels of humidity (standard in Germany). the frame is powder coated. The Driving sheet os 2 mm strip galvanized and powder coated. Frame covering made by aluminium bulb plates.

CURRENT BUS BAR

In case of long driveways.

ADDITIONAL CONTROL UNITS

One control unit with key-switch is included in the scope of delivery. It is possible to deliver additional control units.

TOUCH SCREEN



Touch screen with key switch, emergency-stop in dead man's control (standard in case of more than 3 platforms in a row).

MANUAL OR ELECTRICAL GATES

It is also possible to deliver manual or electrical gates for your system. The electrical gates can also be operated by an optionally deliverable remote control.

ADDITIONAL FLASHING LIGHTS



The flashlight signals that the system is running and therefore gives more safety to the user as well as to other people next to the system. It is possible to use one flashlight for up to 2-3 platforms.

RUBBER CONTACT EDGES

In case the safety distances acc. to DIN EN 14010 cannot be observed, in order to avoid crush points the system stops automatically as soon it encounters an obstacle.

LIGHT BARRIERS FOR MAX. 20 M

The system is provided with electrical light barriers control for maximum safety of operation.

It is also possible to optionally deliver a pillar for the light barriers.

SERVICES TO BE PROVIDED BY THE CUSTOMER AND PLANNING INDICATIONS

During the planning phase please observe and comply with the following notes!

SERVICES TO BE PROVIDED BY THE CUSTOMER

Safety fences

Safety fences acc. to DIN EN ISO 13857 must be provided by the customer.

Parking spaces' numeration

For the allocation of the parking spaces we suggest our customers to numerate the parking spaces.

Noise abatement measures

The compliance with these measures must be carried out by the customer acc. to norm DIN 4109: „Sound insulation in building construction“.

Lighting

To be carried out by the customer acc. to DIN 67528: „Lighting for parking areas and indoor car parks“.

Electrical installation

Prior to starting the assembly the customer must provide a lockable main control switch out of the system/pit close to the power unit. Electrical services to be provided by the customer acc. to this brochure's specification.

Installation requirements

The compliance with installation requirements acc. to quotation.

Fire protection

The customer must agree upon the fire protection requirements and the required measures with the local fire department and realise them.

Wall openings

In case of partition walls the customer must realise a 10 cm x 10 cm wall opening for hosting hydraulic and electrical cables.

Building permit

The customer must apply for and get the required permits in order to allow the installation of the parking system.

Control unit

The customer must make sure that a plain surface of (L x W) 50 cm x 20 cm for the installation of the control unit is directly close to the power unit and out of the platforms' moving area.

PLANNING INDICATIONS

Parking space width and driving lanes

While planning the parking space and driving lane dimensions please observe and comply with the local/national prescriptions for the Garages' construction. For more parking comfort we suggest you to plan parking spaces of at least 250 cm width.

Group of users

Our parking systems are conceived for a permanent and instructed group of users.

Maintenance and care

We suggest a timely conclusion of a maintenance agreement.

We suggest also to perform maintenance, care and cleaning at regular time intervals.

EG-Machinery directive

Our parking systems comply with the EG-Machinery directive and are CE certified according to the norm DIN EN 14010.

Ramps' inclination

Ramps leading to garages shall not have more than 15% inclination.

Modifications

The company Otto Nußbaum GmbH & Co. KG reserves the right to make dimensional, design and technical modifications.