

“Parking with  
pleasure...”

# P Parkolay

## Parkist 11 / Parkist 22

S = single system = 2 cars

D = double system = 4 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

## Parkist Series

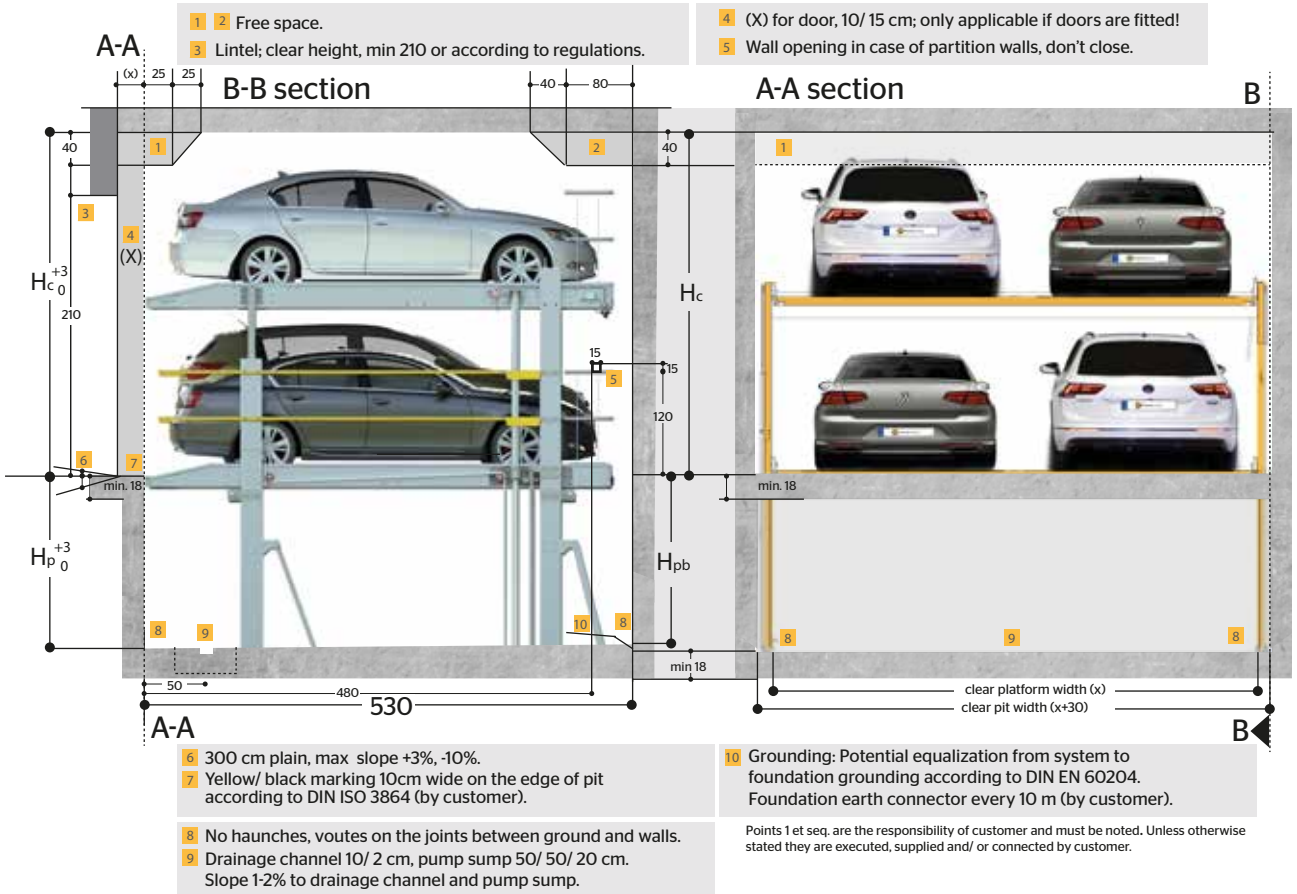


**Parkist 11** and **Parkist 22** provide **independent parking** solution by creating a parking space on the lower floor, which **double the capacity** of your parking garage.

### ADVANTAGES »

- The system provides independent parking utility by placing the vehicle on the lower platform.
- The system increases the efficiency of your parking area by creating an upper floor for short-term users and a lower floor for permanent users.
- By raising the lower platform, the vehicle on the pit can be retrieved and parked comfortable and easily; without having to replace the upper vehicle.
- Innovative plain platform surface design makes both walking and driving more comfortable.
- The valet service is not required as the drivers can park themselves comfortably in the system.



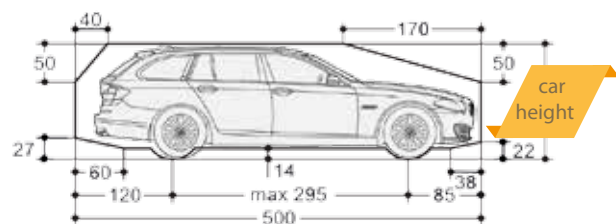


## Variant For Car Height

VARIANT 150 <b>H 320</b>	150	150
H <sub>p/b</sub> 170/165	150	150
VARIANT 160 <b>H 330</b>	150	150
H <sub>p/b</sub> 180/175	160	160
VARIANT 160 <b>H 340</b>	160	160
H <sub>p/b</sub> 180/175	160	160
VARIANT 170 <b>H 340</b>	150	150
H <sub>p/b</sub> 190/185	170	170
VARIANT 170 <b>H 360</b>	170	170
H <sub>p/b</sub> 190/185	170	170
VARIANT 180 <b>H 350</b>	150	150
H <sub>p/b</sub> 200/195	180	180

VARIANT 180 <b>H 380</b>	180	180
H <sub>p/b</sub> 200/195	180	180
VARIANT 190 <b>H 360</b>	150	150
H <sub>p/b</sub> 210/205	190	190
VARIANT 190 <b>H 400</b>	190	190
H <sub>p/b</sub> 210/205	190	190
VARIANT 200 <b>H 370</b>	150	150
H <sub>p/b</sub> 220/215	200	200
VARIANT 200 <b>H 420</b>	200	200
H <sub>p/b</sub> 220/215	200	200

## Car Profile Dimension »



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

# System Width »

### Between walls

**Parkist 11**  
Single system S  
S = 2 spaces

230	260
240	270
250	280
260	290
270	300

**Parkist 22**  
Double system D  
D = 4 spaces

490
510
530
550
570

**Parkist 22 - 11**  
Mixed D, S  
D, S = 4, 2 spaces

750
780
810
840
870

Driving lane according to regulation

### Pillars in the pit

**Parkist 11**  
Single system S  
S = 2 spaces

230	255	245
240	265	255
250	275	265
260	285	275
270	295	285

**Parkist 22**  
Double system D  
D = 4 spaces

485	475
505	495
525	515
545	535
565	555

**Parkist 22 - 11**  
Mixed D, S  
D, S = 4, 2 spaces

745	735
775	765
805	795
835	825
865	855

Driving lane according to regulation

### Pillars in front of the pit

**Parkist 11**  
Single system S  
S = 2 spaces

230	250	240
240	260	250
250	270	260
260	280	270
270	290	280

**Parkist 22**  
Double system D  
D = 4 spaces

480	470
490	480
500	490
510	500
520	510

**Parkist 22 - 11**  
Mixed D, S  
D, S = 4, 2 spaces

740	730
770	760
800	790
830	820
860	850

Driving lane according to regulation

**WIDTH »**  
Shown dimensions are minimum. See also page 6  
"Clear space width" is according to Garage Code or local/ regional regulations. Nevertheless the supplier recommends due to the increasing width of cars a minimum "clear space width" of 250 cm or even more for SUV and luxury limousines.  
End boxes are difficult to enter out of the car curve radius. For endboxes and systems between walls, the supplier recommends the maximum available "clear space width".  
Any growth of the driving lane supports the comfort.

For comfortable walking

## “A savior” flat platform surface design.

Users deserve more comfort. Our platform design offers comfort beyond your expectations.

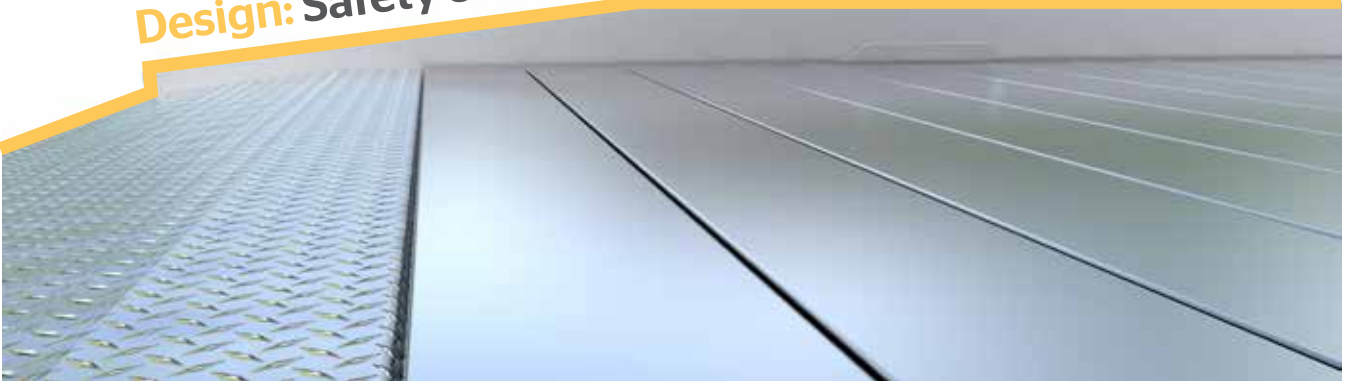
The flat platforms provide much comfort while walking and driving on.

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 »



### PARKING SPACE CAPACITY AND WHEEL LOAD »

Cars with overweight. The biggest Switzerland motorcyclist association remeasured the weight of cars, which is figured out in the car registration certificate according to regulation 92/21/EEC. In most of the cases the car was heavier than stated on document. Often individual options are not calculated. Sliding roof, bigger wheels, hifi systems, motors for seats, etc might increase the weight, which can be up to 150 - 200 kg higher on a car like Mercedes E-Class, BMW 5-Series, Audi A6. Therefore the supplier offers a standard parking space capacity of 2.200 kg and 550 kg wheel load, option 2.800 kg and 700 kg wheel load.



### SHIFTED COLUMNS »

Modern parking systems use 4 column technique for more comfort.

However, it is important where these columns are placed in detail: We have positioned them in the car clearance profile with a car axchses distance of about 290 cm. Not before and not behind.

Besides the static advantage, this provides advantage not only to the front but also to the back door. Railing and side sheets should support those highlights.



### CONTROL SOUND EMISSIONS »

Car parking systems are sustainable, but also produce sound emissions that can affect health and care during use and operation. Compliance of sound emissions is important and effects R&D, planning and execution. We differ between air borne and body sound emission. For the latter the heavy duty support as well as the hydraulic insulation are of importance. Driving noise from the platform are part of the subjective perception and affect the quality impression.



### CLEANING AND VALUE PRESERVATION »

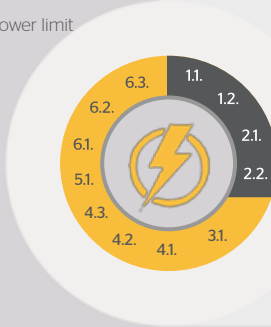
A car parking system represents a major investment financially. Cleaning and care services can ensure a proper appearance, value preservation, function, availability and might lengthen the life time cycle. In reality one main reason for the poor and sometimes rusty look is, that the platform design is exceptionally difficult to clean and thus the necessary processes often are neglected. The supplier has developed a user friendly platform design, that provides the possibility to clean and maintain professionally.



# Electrical Supply »

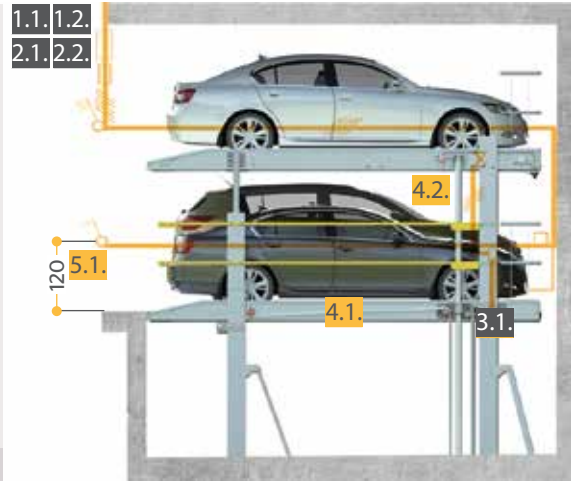
## Parkolay

- 5.1. Up and down operating terminal. On the left, if possible. Outside the motion zone. The cable feed is below.
- 4.3. Control cable from lower limit switch 3 x 0,75mm<sup>2</sup>.
- 4.2. Supply cable to the valve 3 x 0,75 mm<sup>2</sup>.
- 4.1. Control cable from operating terminal 8 x 0,75 mm<sup>2</sup>.



## Customer

- 1.1. Electric power distribution panel.
- 1.2. 3 x 16 A slow character MCB (Miniature Circuit Breaker) for each control panel and hydraulic power unit set
- 2.1. Supply line, Equipotential earthing connection according to DIN TS EN 60204.
- 2.2. 5 x 4 mm<sup>2</sup> supply cable (40 kW / 55 kW, 400V, 50Hz) goes from customer power distribution panel to system control panel set for each control panel and hydraulic power unit.
- 3.1. Control cable line goes to other side platform system.



# Structural Forces »

Forces kN**		S		S*		D		D*	
car version kg		2.200	2.800	2.800	2.200	2.800	2.800	2.200	2.800
	F1	22	27	27	43	52	52	43	27
	F2	22	27	27	43	52	52	43	27
	F3	3	4	4	3	4	4	3	4
	F4	2	3	3	2	3	3	2	3

\*\* With car load

\* Option

### FOUNDATION »

Systems are fixed by heavy duty anchor bolts with a drilling depth of approx. 14 cm. Floor and walls below the drive-in level are to be made of reinforced concrete, min thickness 18cm, quality minimum C20/ 25. Chemical anchors are option for water-proof concrete.

### Corrosion 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 pit 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.

Railings on the systems are provided by supplier, if necessary.

### 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 different and specific requirements. The supplier has to be informed in advance by the customer.



### Dewatering



Dewatering involves controlling water in the pit with the possibility of pumping it out of a watercollecting pump sump. Water may occur from snow on the car, leaking shell, ground water, wet cleaning the systems (to prevent corrosion) or others. Necessary are slopes from pit back to pit front, slope to the drainage channel 10 x 2 cm (1-2 degrees). slope of the drainage system to the pump sump (50 x 50 x 20 cm).

### Car development

The analysis of cars incorporates developments i.a. in more width and height. Even the classes of family cars and SUV are expanding. Reports show that just upper middle class cars can be in total heavier than 2.000 kg. Therefore the supplier recommends a "parking space width" of 250 cm and a min car height of 160/ 170 cm. The supplier provides for the car capacity a standard of 2.200 kg, wheel load 550 kg (Option 2.800/ 700 kg).



### Sound insulation DIN 4109: 2016-07



"Sound insulation in buildings". According to the german norm a value of 30 dB(A) is allowed in living quarters. This can be fulfilled 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/ m<sup>2</sup>.

The adjacent critical building element should be min m' = 580 kg/ m<sup>2</sup>.

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 lighting 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 parking systems 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.