

“Parking with
pleasure...”

P Parkolay

Parkist 111 / Parkist 222

S = single system = 3 cars

D = double system = 6 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



Lower position



Middle position



Upper position

Parkist 111 and Parkist 222

The systems provide independent parking with pit for permanent user. In lower/middle/upper position the cars can enter/exit on lower/middle/upper platform.

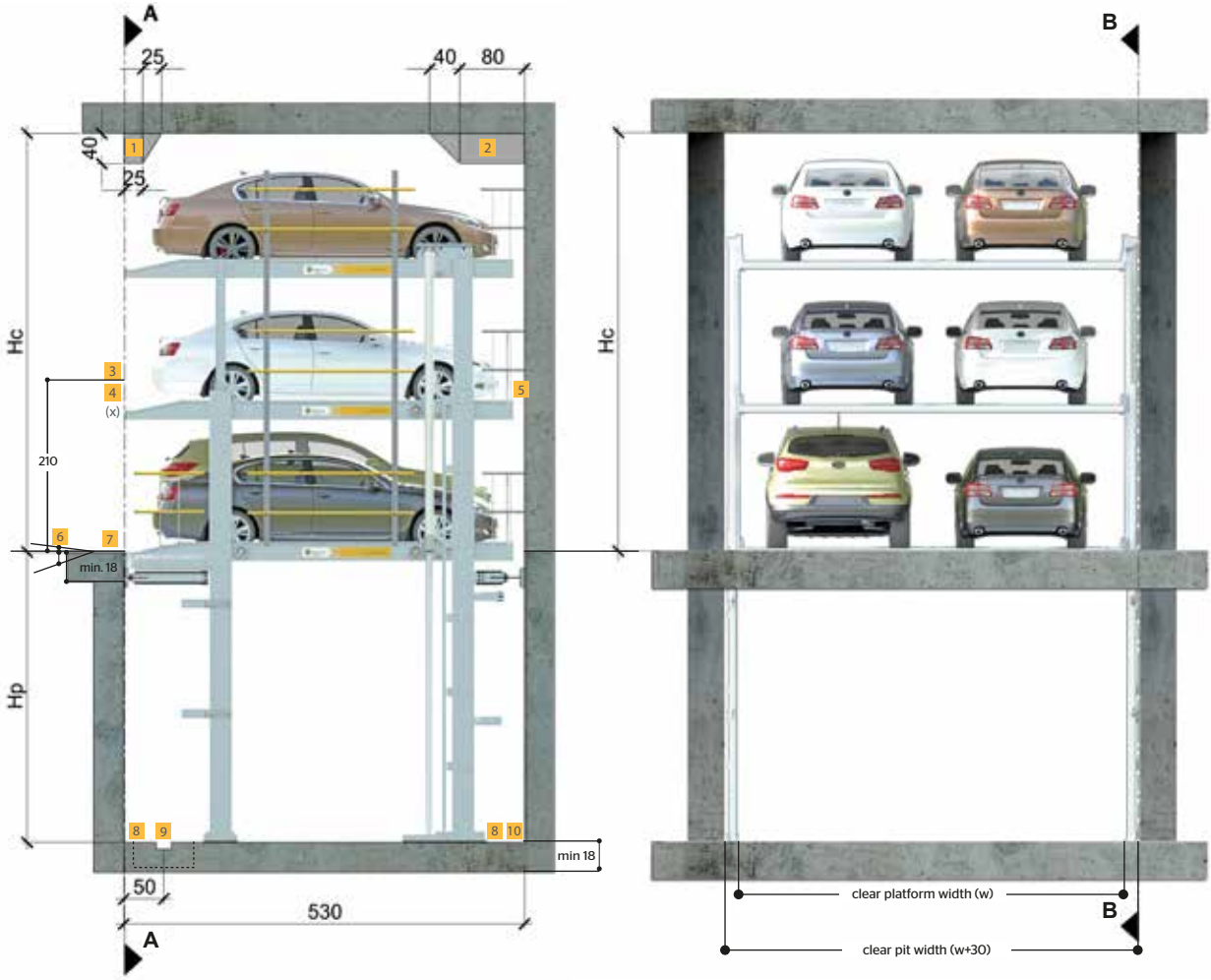
ADVANTAGES»

- The system provides 3 times capacity at one parking spot with independent parking.
- Provides speed and convenience with using lower platforms for long-stand parking and upper platforms for short-stand parking.
- Usable both indoor and outdoor parking.
- Innovative plain platform surface design makes both walking and driving more comfortable.
- Using the system in succession, vehicles can reach in the back systems to cover at the entrance level.
- Standard parking space capacity of 2.200 kg /car and unique option 2.800 kg/ car.

Parkist Series



- 1 2 Free space.
- 3 Lintel; clear height, min 210 or according to regulations.
- 4 (X) for door, 10/ 15 cm; only applicable if doors are fitted!
- 5 Wall opening in case of partition walls, don't close.



- 6 300 cm plain, max slope +3%, -10%.
 - 7 Yellow/ black marking 10cm wide on the edge of pit according to DIN ISO 3864 (by customer).
 - 8 No haunches, routes 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.
 - 10 Grounding: Potential equalization from system to foundation grounding according to DIN EN 60204. Foundation earth connector every 10 m (by customer).
- 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.

Variant For Car Height

VARIANT 150
H 480

150	150
150	150
150	150

H_{p/b} 335/330

VARIANT 155
H 495

155	155
155	155
155	155

H_{p/b} 345/340

VARIANT 170
H 540

170	170
170	170
170	170

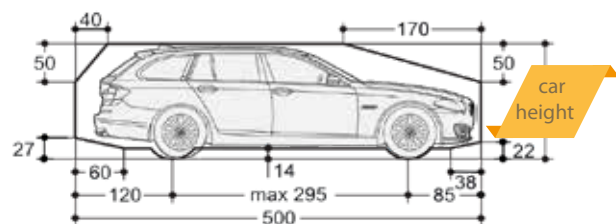
H_{p/b} 375/370

VARIANT 175
H 555

175	175
175	175
175	175

H_{p/b} 385/380

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 111
Single system S
S = 3 spaces

CLEAR SPACE WIDTH

- 230 — 270
- 240 — 280
- 250 — 290
- 260 — 300
- 270 — 310

Parkist 222
Double system D
D = 6 spaces

- 500
- 520
- 540
- 560
- 580

Parkist 222 - 111
Mixed D, S
D, S = 6, 3 spaces

- 770
- 800
- 830
- 860
- 890

Driving lane according to regulation

Pillars in the pit

Parkist 111
Single system S
S = 3 spaces

CLEAR SPACE WIDTH

- 230 — 260 — 245
- 240 — 270 — 255
- 250 — 280 — 265
- 260 — 290 — 275
- 270 — 300 — 285

min. 20
max. 100

Parkist 222
Double system D
D = 6 spaces

- 490 — 475
- 510 — 495
- 530 — 515
- 550 — 535
- 570 — 555

min. 20
max. 100

Parkist 222 - 111
Mixed D, S
D, S = 6, 3 spaces

- 750 — 740
- 780 — 770
- 810 — 800
- 840 — 830
- 870 — 860

min. 20
max. 100

Driving lane according to regulation

Pillars in front of the pit

Parkist 111
Single system S
S = 3 spaces

CLEAR SPACE WIDTH

- 230 — 260 — 240
- 240 — 270 — 250
- 250 — 280 — 260
- 260 — 290 — 270
- 270 — 300 — 280

min. 20

Parkist 222
Double system D
D = 6 spaces

- 490 — 475
- 510 — 495
- 530 — 515
- 550 — 535
- 570 — 555

min. 20

Parkist 222 - 111
Mixed D, S
D, S = 6, 3 spaces

- 750 — 740
- 780 — 770
- 810 — 800
- 840 — 830
- 870 — 860

min. 20

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

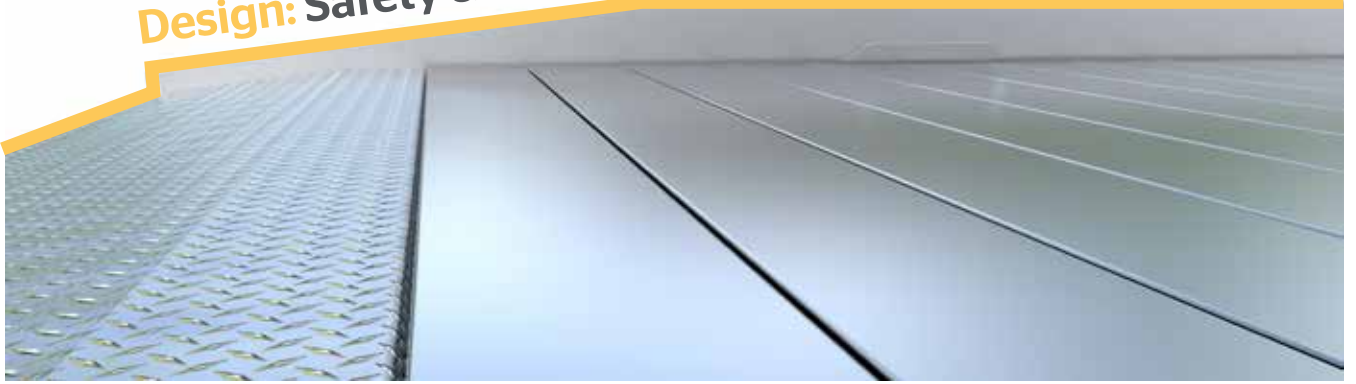
“A savior” flat platform surface design.

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.



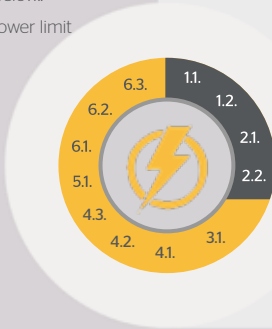
CLEANING AND VALUE PRESERVATION »

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 »

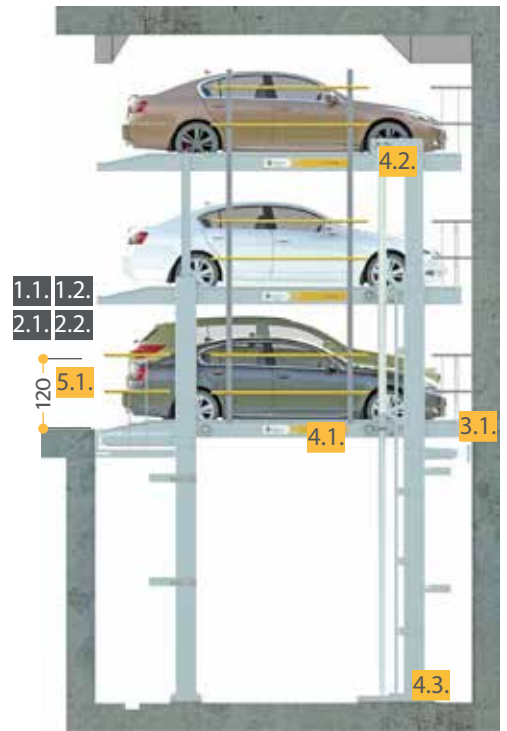
Parkolay

- 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 5 x 0,75mm².
- 4.2. Supply cable to the valve 3 x 0,75 mm².
- 4.1. Control cable from operating terminal 9 x 0,75 mm².

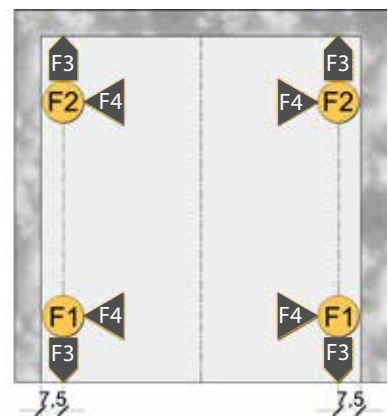
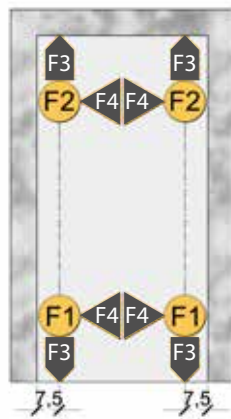
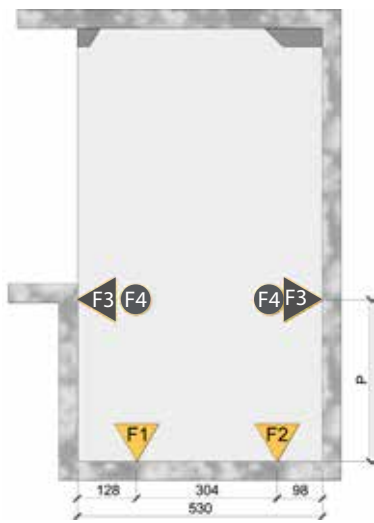


Customer

- 1.1. Electric power distribution panel.
- 1.2. 3x32A C character MCB (Miniature Circuit Braker) and 4x40A A-SI character 300mA RCCB (Residual Current 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. 5x6mm² supply cable (2 x 5,5 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	2.200	2.800
F1		32	37	61	65
F2		35	39	71	73
F3		5	5	5	5
F4		5	5	5	5

** 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.



“Parking with pleasure...”



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/ m².

The adjacent critical building element should be min m' = 580 kg/ m². 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 30 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.