Parkist Series

Parkist 01

S = single system = 2 cars

Standard: Car weight max. 2,200 kg, wheel load: max. 550 kg
Option 1: Car weight max. 2,800 kg, wheel load: max. 700 kg
Option 2: Car weight max. 3,000 kg, wheel load: max. 750 kg

ADVANTAGES

• The system increases the efficiency of your parking area by using the platform for permanent users; and creating a space underneath it for short-term users.
• The vehicles can enter and exit via the platform in the lower position.
• Innovative plain platform surface design makes both walking and driving more comfortable.

Parkist 01 provides dependent parking solution by creating a parking space on the upper floor, which doubles the capacity of your parking garage.

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**Grounding**: Potential equalization from system to foundation

- Lintel; clear height, min 210 cm or according to regulations.
- Wall opening for electrical and hydraulic cables.
- Free space.
- No haunches, voutes on the joints between ground and walls.

300 cm plan, max slope -10%.

Grounding: Potential equalization from system to foundation grounding according to DIN EN 60204. Foundation earth connector every 10 m (by customer).

Yellow/ black marking 10 cm wide on the edge to parking area according to ISO 3864 (by customer).

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### Variant For Car Height

<table>
<thead>
<tr>
<th>Variant 150</th>
<th>H 320</th>
<th>150</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>H 330</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>H 340</td>
<td>160</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>Variant 170</td>
<td>H 340</td>
<td>150</td>
<td>170</td>
</tr>
<tr>
<td>H 360</td>
<td>170</td>
<td>170</td>
<td></td>
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<tr>
<td>H 350</td>
<td>150</td>
<td>180</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Variant 180</th>
<th>H 380</th>
<th>180</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td>H 360</td>
<td>150</td>
<td>190</td>
<td></td>
</tr>
<tr>
<td>Variant 190</td>
<td>H 400</td>
<td>190</td>
<td>190</td>
</tr>
<tr>
<td>Variant 200</td>
<td>H 370</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Variant 200</td>
<td>H 420</td>
<td>200</td>
<td>200</td>
</tr>
</tbody>
</table>

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

### Car Profile Dimension

- **Variant 150**
  - H 320: 150 cm
  - H 330: 150 cm
  - H 340: 160 cm
  - Variant 170: H 340, 150 cm, 170 cm
  - H 360: 170 cm
  - H 350: 150 cm

- **Variant 180**
  - H 380: 180 cm
  - H 360: 150 cm
  - Variant 190: H 400, 190 cm
  - Variant 200: H 370, 150 cm, 200 cm
  - Variant 200: H 420, 200 cm

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**Parkolay**
### System Width

#### Between walls

1 Single system S  
S = 2 spaces  

2 Single system S  
S + S = 4 spaces  

3 Single system S  
S + S + S = 6 spaces

#### Pillars in the Parking area

1 Single system S  
S = 2 spaces  

2 Single system S  
S + S = 4 spaces  

3 Single system S  
S + S + S = 6 spaces

#### Pillars in front of Parking area

1 Single system S  
S = 2 spaces  

2 Single system S  
S + S = 4 spaces  

3 Single system S  
S + S + S = 6 spaces

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**CLEAR SPACE WIDTH**

<table>
<thead>
<tr>
<th>Dimensions (cm)</th>
<th>Between walls</th>
<th>Pillars in the Parking area</th>
<th>Pillars in front of Parking area</th>
</tr>
</thead>
<tbody>
<tr>
<td>230</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>240</td>
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<td></td>
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<td>260</td>
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<td></td>
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<tr>
<td>270</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

**Driving lane according to regulation**

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**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.
SAFETY FOR USER AND CARS

The parking system offers strength and safety. Its structure must be even safer, while cars and persons will long-term respectively time wise park/stay below the upper loaded platform. Therefore, the supplier has spent several unique safety features that benefit the system's users: 2 directly connected cylinders, 2 safety locks and safety valves. A stable foot construction is offering the well-recognized benefit for the structural stability. The system's optimum design offers high loading weights and extreme rigidity, keeping the user secure and trusted.

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, hi-fi 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, options 2,800 kg and 700 kg wheel load, 3,000 kg and 750 kg wheel load.

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 affects 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 is 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.

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 vehicle's 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.
**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 for coils: 3 x 0.75 mm²
  - 4.2. Control cable to the valve: 3 x 0.75 mm²
  - 4.1. Control cable from operating terminal: 8 x 0.75 mm²

- **Customer**
  - 1. Electric power distribution panel
  - 1.2. 3 x 16 A slow character MCB (Miniature Circuit Breaker) for each control panel and hydrolic power unit set
  - 2.1. Supply line, Equipotential earthing connection according to DIN T5 EN 60204
  - 2.2. 5 x 4 mm² supply cable (4.0 kW, 400V, 50Hz) goes from customer power distribution panel to system control panel set for each control panel and hydrolic power unit.

- **Forces kN**
  - **S**
    - F1: 2,200, 12
    - F2: 1,1/-4, 14/-5
    - F3: 3, 4
  - **S**
    - 2,800, 16
    - 15/-5
    - 4
  - **S**
    - 3,000, 17
    - 15/-5
    - 4

- **Option**: The height of the floor stand for operation terminal is 180 cm.

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**Structural Forces**

- **Forces kN**
  - **S**
    - F1: 2,200, 12
    - F2: 1,1/-4, 14/-5
    - F3: 3, 4
  - **S**
    - 2,800, 16
    - 15/-5
    - 4
  - **S**
    - 3,000, 17
    - 15/-5
    - 4

- **** With car load

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**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.

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"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

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.

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.

Safety fences

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.

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 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 or others. It can be solved by a drainage system 10/ 2 cm with pump sump (50 x 50 x 20 cm). There should be no water in the parking area.

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. Optionnally, 2.800 kg and 3.000 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 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 m² = 300/400 kg/ m²/ superior.

The adjacent critical building element should be min m² = 580 kg/ m²/ superior.

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.

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.

MARKETING

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.

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.

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 (35cm x 100cm), 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).