

“ Parking with
pleasure...”

P Parkolay

Parkist C Series

Parkist 1C - 11C - 111C / 2C - 22C - 222C

S = single system = 1-2-3 car(s)

D = double system = 2-4-6 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

Parkist C Series



Parkist C Series include independent pit-type mechanical parking systems with cover at the entrance level.

The cover moves up and down allowing for the vehicles to be parked in a closed system, safely and comfortably, which provides similar safety and comfort level as the closed parking garage's. The cover can be used for vehicles to be parked on or as part of the landscape area according to the different architectural preferences. The system has a hold-to-run key switch that should be turned uninterruptedly while the system is operating. The user can retrieve the key once the cover is in its lower end position.

ADVANTAGES »

- The system provides 3 times valetless capacity increase with independent parking utility.
- As the vehicles are parked underground, they are sheltered outdoors without any risk.
- Provides passage and parking on cover.
- Cover can be paved according to the constructional and architectural preference.
- Innovative plain platform surface design makes both walking and driving more comfortable.
- Using the system in succession, vehicles can reach the back systems through the cover at the entrance level.
- Standard parking space capacity of 2.200 kg /car and unique option for a load up to 2.800 kg/ car.



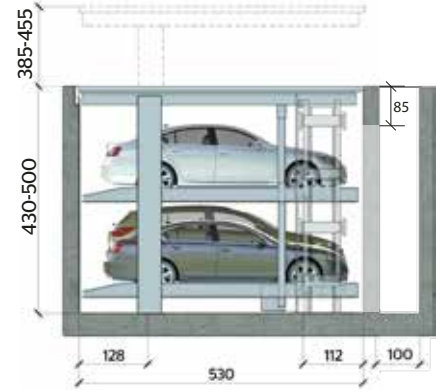
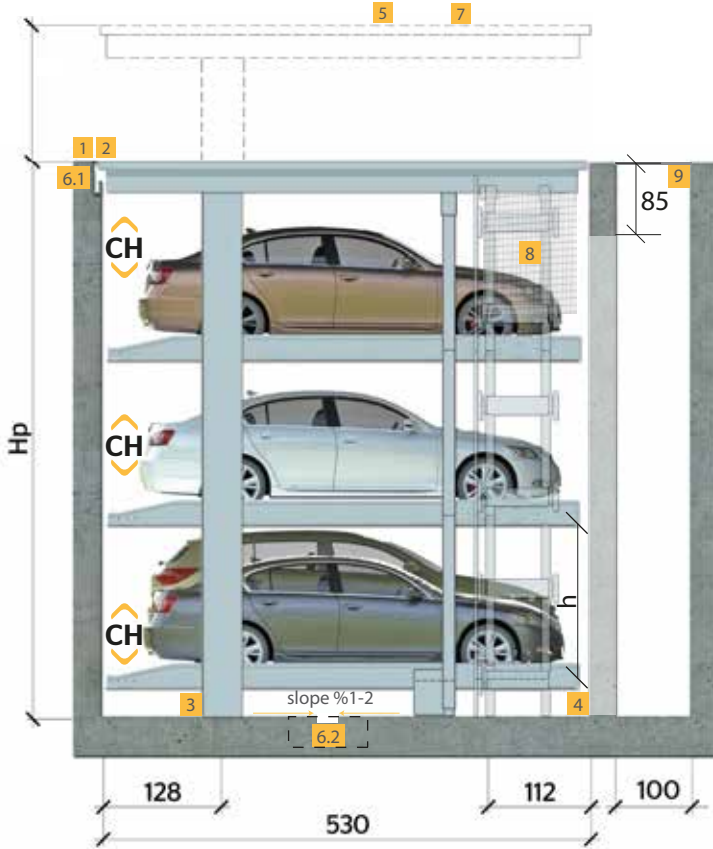
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(Shown dimensions are for car height* 165-200 cm)

- 1 300 cm plain, max slope +3%/ -5%. Platforms are only horizontally accessible through the ground levels.
- 2 Yellow/ black marking 10 cm wide on the edge of parking area according to ISO 3864.
- 3 No haunches, routes on the joints between the ground and walls.
- 4 Grounding: Potential equalization from system to foundation grounding according to DIN EN 60204. Foundation earth connector every 10 m.
- 5 Cover platform:
 - Filled and paved by the customer (e.g., wooden, marble, stones, metal sheet, etc.) Cover pavement is limited to max. 100 kg/m².
 - Drive over by vehicles with maximum weight of 2.800 kg, max. wheel load 700 kg.
 - Parkist 111C and Parkist 222C can not be lifted up with car parked on the cover.
 - Parking on cover needs an additional wheel device (Option).
- 6 Drainage system with connection to the sewers, fall under the responsibility of the customer.
- 6.1 Pls. see detail page 6
- 6.2 Drainage channel 10/ 2 cm, pump sump 50/ 50/ 20 cm. Slope 1-2% to drainage channel and pump sump.
- 7 Designed according to DIN 1055-5 for Snow Load Zone II up to 0.75 kN/m² and a wind impact pressure of 0,25 kN/m².
- 8 Safety fencing in the rear, side and back of the systems to be included to the project as required (Option).
- 9 The customer must provide the related maintenance shaft, ladder and safeguarded entrance/access door.
- 10 The pit has to be ventilated and deaerated, the base plates have to be dewatered and dry. Interfaces have to avoid back flowing of water. The customer must provide.
- 11 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.

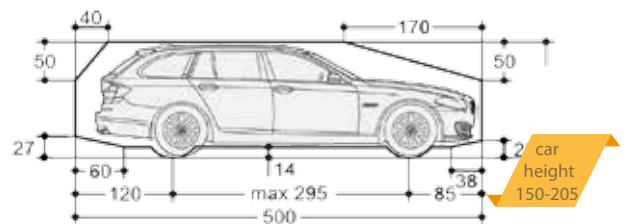


Platform Widths and Variant For Car Height

(cm)	Parkist 1C - 11C - 111C					Parkist 2C - 22C - 222C				
Wp	230	240	250	260	270	460	480	500	520	540
Ws	275	285	295	305	315	505	525	545	565	585
Wt	290	300	310	320	330	520	540	560	580	600

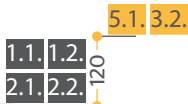
(cm)	H	Hp	Ch	h
Parkist 1C - 2C	210	255	165	170
	245	290	200	205
Parkist 11C - 22C	385	430	165	170
	455	500	200	205
Parkist 111C - 222C	565	610	165	170

Car Profile Dimension »



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

Electrical Supply »



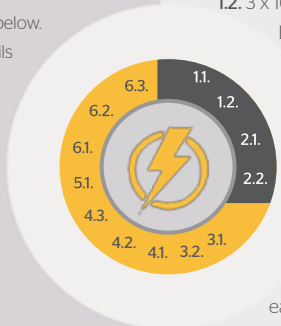
Parkolay

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

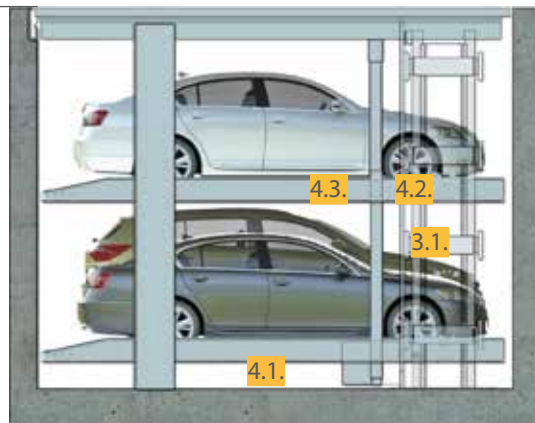
1.1. Electric power distribution panel.
1.2. 3 x 16 A slow character MCB (Miniature Circuit Breaker) for each control panel and hydraulic power unit set

2.1. Supply line, Equipotential earthing connection according to DIN TS EN 60204

2.2. 5 x 4 mm² supply cable (4.0 kW / 5.5 kW, 400V, 50Hz) goes from customer power distribution panel to system control panel set for each control panel and hydraulic power unit.

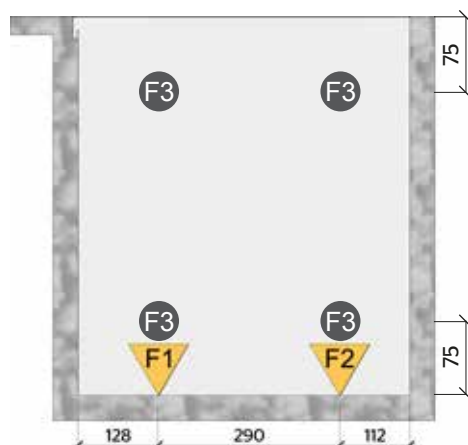
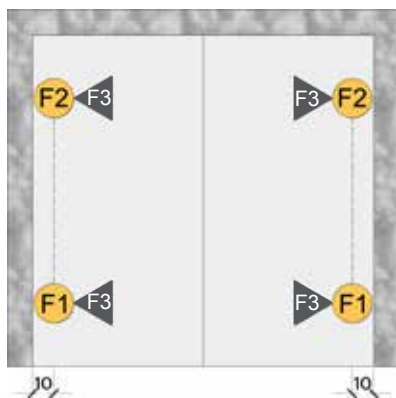
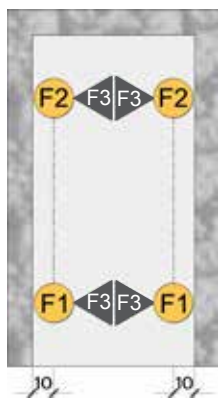
3.1. Control cable line goes to other side platform system.

3.2. Control cable line goes to other side platform system.



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 in front of the cabinet must be 100 cm free space and fixed area for door opening and service operator.

Structural Forces »



Max. car weight *	2.200 kg		2.800 kg	
Parkist C series **	F1	F2	F1	F2
Parkist 1C	37	40	39	41
Parkist 11C	46	49	50	52
Parkist 111C ***	55	58	60	63
Parkist 2C	47	51	51	54
Parkist 22C	66	69	73	76
Parkist 222C ***	84	88	94	97

* Specified load values are including car weight.

** Cover pavement is limited to max. 100 kg/m².

*** Parkist 111C and Parkist 222C can not be lifted up with car parked on the cover.

F3 =5 kN. All loads are stated in kN.

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 min. C20/ 25. Chemical anchors are option for water-proof concrete.



“Parking with pleasure...”



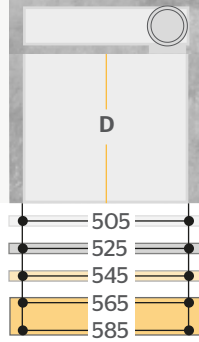
System Width »

Pit dimensions

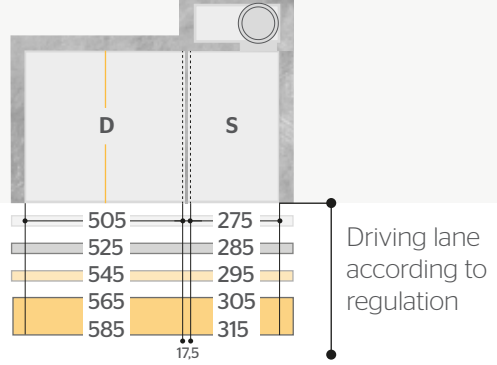
Parkist C Series
Single system S



Parkist C Series
Double system D

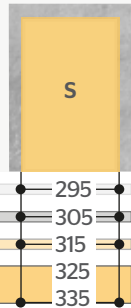


Parkist C Series
Mixed D, S

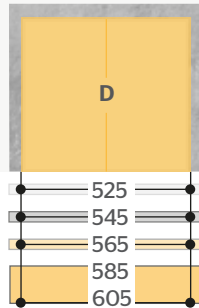


Cover platform dimensions

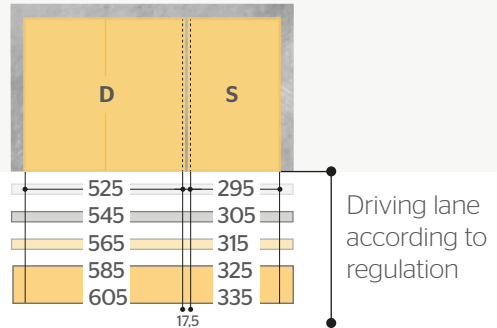
Parkist C Series
Single system S



Parkist C Series
Double system D



Parkist C Series
Mixed D, S



Platform Dimensions: »

Width for Single Unit: 250 cm **Parkist 1C-11C-111C** Double Unit: 500 cm **Parkist 2C-22C-222C**

Car width: 190 cm (w/o outer mirror)

250 cm platform width is recommended for pleasant parking. Comfort on parking will decrease with reduced platform width based on car width, type, driving techniques and garage entrance cases.

Platform Dimensions: »

Width for Single Unit: 260 cm - 270 cm **Parkist 1C-11C-111C** Double Unit: 520 cm - 540 cm **Parkist 2C-22C-222C**

Car width: wider than 190 cm (w/o outer mirror)

WIDTH »

Shown dimensions are minimum. See also page 8

"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.

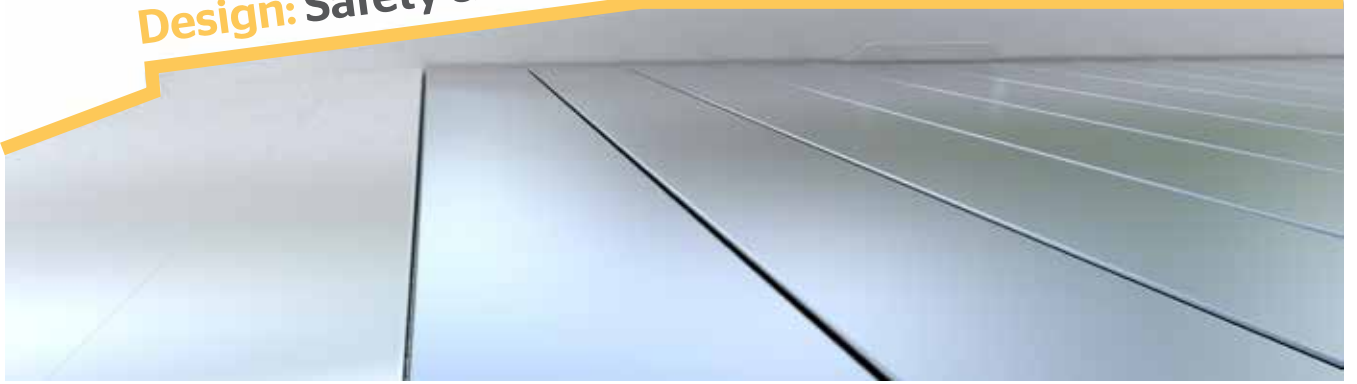
The flat platforms provide much comfort while walking and driving on.

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 stactical 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.

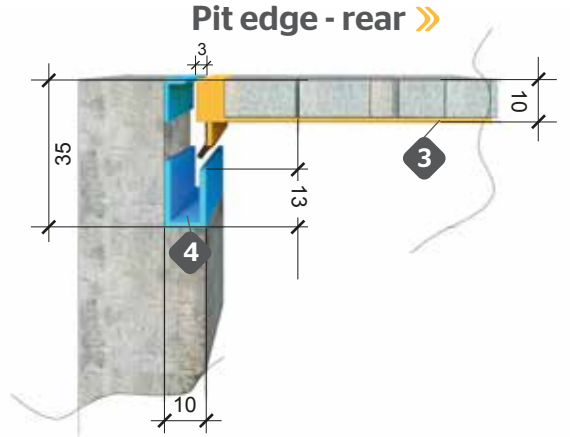


CLEANING AND VALUE PRESERVATION »

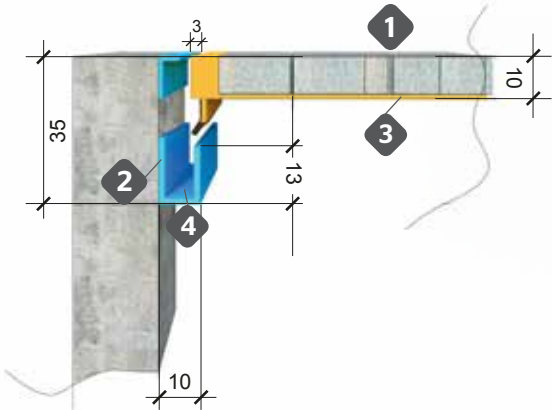
A car parking system represents a major investment financially. Cleaning and care services can ensure a proper appearance, value preservation, function, availability and might lengthen the life time cycle. In reality one main reason for the poor and sometimes rusty look is, that the platform design is 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.

Drainage Channel »

- ❶ Stone and waterproof pave material will be supplied by customer.
- ❷ Drainage channels and dewatering system etc. will be supplied by customer.
- ❸ Slope and dewatering to entrance side should be maximum 1% in connection with access side.
- ❹ Enclosing drainage channel with connection to sewerage supplied by customer, avoid unexpected water back flow by technical device.
- ❺ Due to temperature differences inside the pit and exterior condensation should be avoided by a ventilation system supplied by customer.

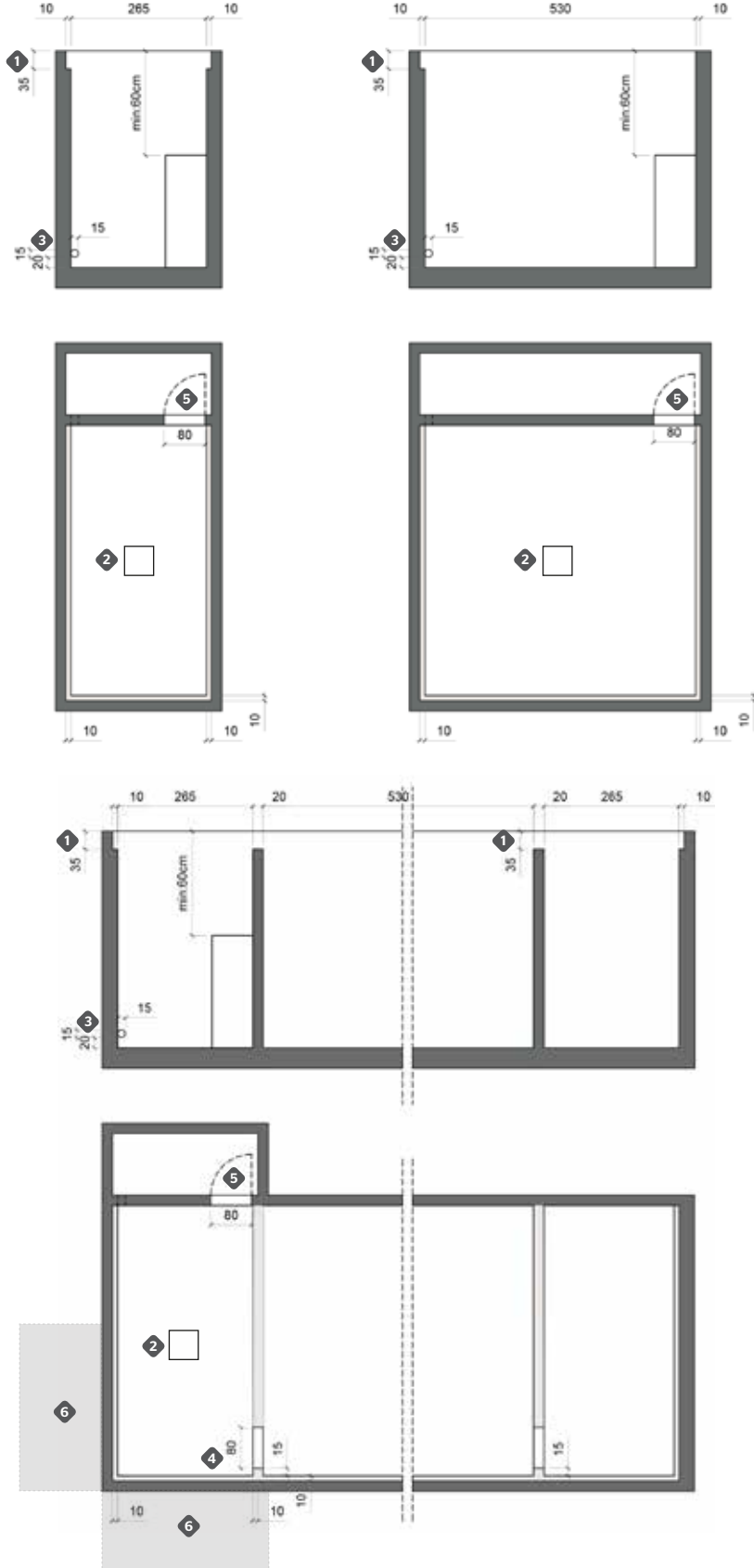


Pit edge - entrance & lateral sides »



Pit Dimensions »

- ❶ Height to ground floor level
- ❷ Sump in the drainage channel with grinding
- ❸ Hydraulic gap 15cm X 15cm
- ❹ Height of the passage to neighbouring pit and to maintenance shaft has to be same
- ❺ Door will be installed by customer If required
- ❻ Another option of the maintenance shaft (Sump in the drainage channel has to be displaced)



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 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 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 the systems (to prevent corrosion) 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. Parallely 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 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/ 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 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 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.