

#### Dimensions

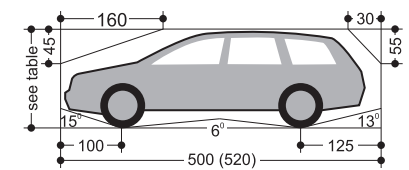
Tolerances for space requirements <sup>+3</sup> 0. <sup>3</sup>  
Dimensions in cm.

#### Suitable for

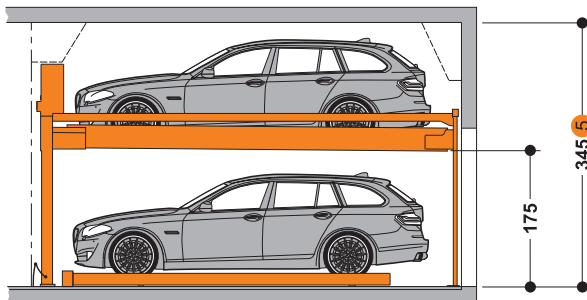
Standard passenger cars:  
According to clearance and maximal surface load.

	Standard	Special <sup>2</sup>
Width	190 cm <sup>4</sup>	190 cm <sup>4</sup>
Weight	max. 2000 kg	max. 2500 kg
Wheel load	max. 500 kg	max. 625 kg

#### Clearance profile

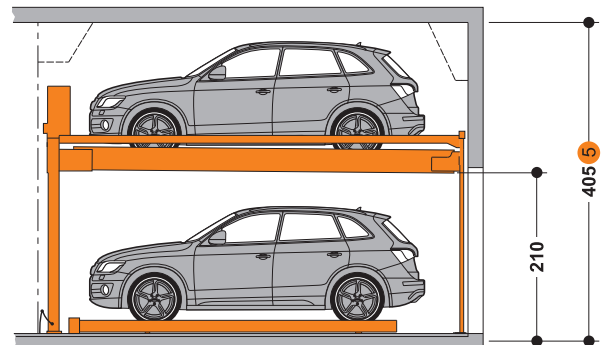


#### P200-345



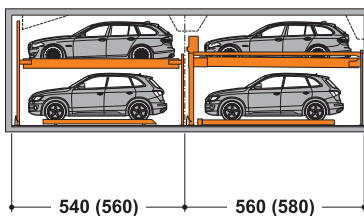
Height	Car height	
	OG	EG
345	150	165

#### P200-405

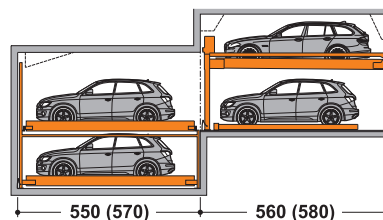


Height	Car height	
	OG	EG
405	175	200

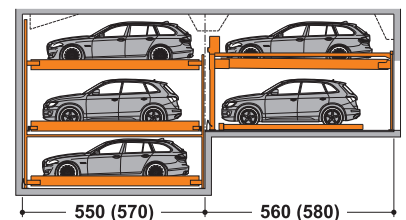
#### Combination P210 with P200



#### Combination P110 with P200



#### Combination P310 with P200



- Standard type
  - Special system. Maximum load for extra charge
  - To follow the minimum finished dimensions, make sure to consider the tolerances during construction.
  - Car width for platform width 230 cm. If wider platforms are used, it is also possible to park wider cars.
  - If height H is larger, vehicles with the maximum height as applicable for the EG be parked on the OG, otherwise there will be free space available on the ceiling.
  - Potential equalization from foundation grounding connection to system (provided by the customer).
  - Tolerances for the evenness of the driveway (floor) must be strictly followed.
  - For convenient use of your parking space and due to the fact that the cars keep becoming longer we recommend a length of 580 cm.
- !** If sprinklers are required, make sure to provide the necessary free spaces during the planning stage.

## Garages with sliding doors (standard) | Widths dimensions

Page 1  
-Section  
-Dimensions  
-Car data

Page 2  
-Width dimensions

Page 3  
-Width dimensions  
-Grid arrangement  
-Approach  
-Free spaces

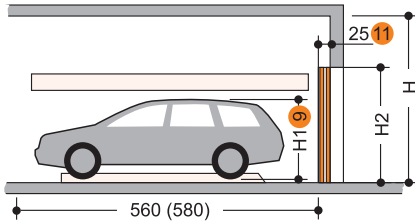
Page 4  
-Function  
-Load plan

Page 5  
-Rails

Page 6  
-Electrical data  
-Technical data

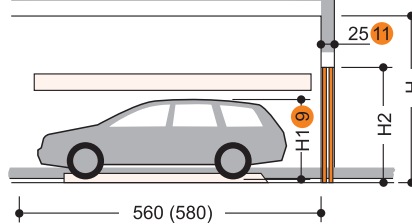
Page 7  
-To be performed by the customer  
-Description

### Sliding door behind columns



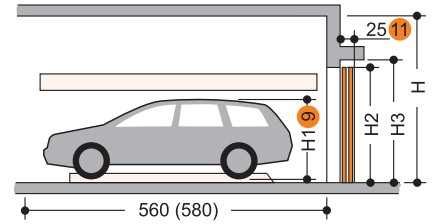
Type	H	H1	H2
P200-345	345	165	210
P200-405	405	200	220

### Sliding door between columns



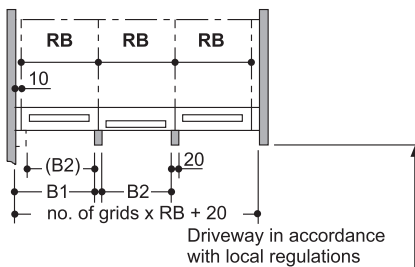
Type	H	H1	H2
P200-345	345	165	220
P200-405	405	200	230

### Sliding door in front of columns



Type	H	H1	H2	H3
P200-345	345	165	210	220
P200-405	405	200	220	230

### Columns per each grid unit



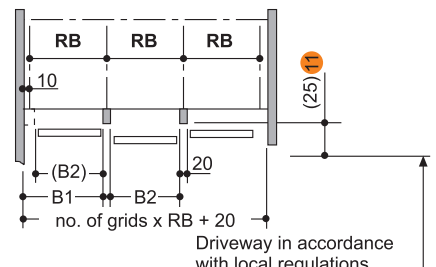
Usable platform width

OG	EG	RB <sup>10</sup>	B1	B2
220	200	240	240	220
230	210	250	250	230
240	220	260	260	240
250	230	270	270	250
260	230	280	280	260
270	230	290	290	270

### Columns per each grid unit

Not available

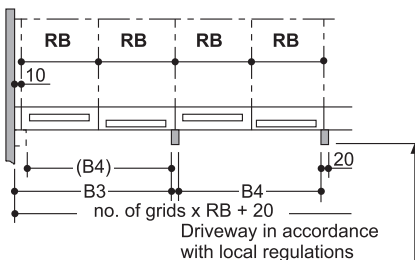
### Columns per each grid unit



Usable platform width

OG	EG	RB <sup>10</sup>	B1	B2
220	200	240	240	220
230	210	250	250	230
240	220	260	260	240
250	230	270	270	250
260	230	280	280	260
270	230	290	290	270

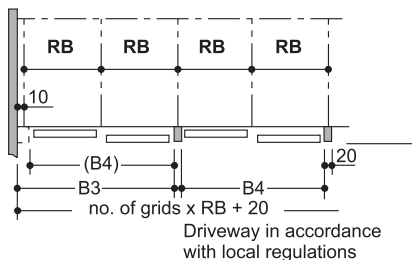
### Columns every second grid unit



Usable platform width

OG	EG	RB <sup>10</sup>	B3	B4
220	200	240	480	460
230	210	250	500	480
240	220	260	520	500
250	230	270	540	520
260	230	280	560	540
270	230	290	580	560

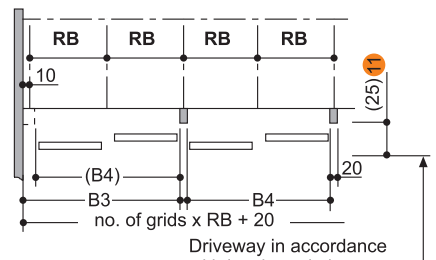
### Columns every second grid unit



Usable platform width

OG	EG	RB <sup>10</sup>	B3	B4
220	200	240	480	460
230	210	250	500	480
240	220	260	520	500
250	230	270	540	520
260	230	280	560	540
270	230	290	580	560

### Columns every second grid unit



Usable platform width

OG	EG	RB <sup>10</sup>	B3	B5
220	200	240	480	460
230	210	250	500	480
240	220	260	520	500
250	230	270	540	520
260	230	280	560	540
270	230	290	580	560

**!** End parking spaces are generally more difficult to drive into. Therefore, we recommend our wider platforms for end parking spaces. Parking larger vehicles on standard width platforms may make getting into and out of the vehicle difficult. This depends on the type of the vehicle, approach and above all, on the driver's skill.

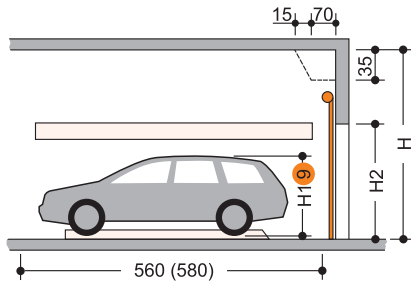
**9** H1 = Height of the vehicle on ground floor platform.

**10** RB = Grid unit width **must** strictly conform to dimensions quoted.

**11** Applies to manually operated doors only.

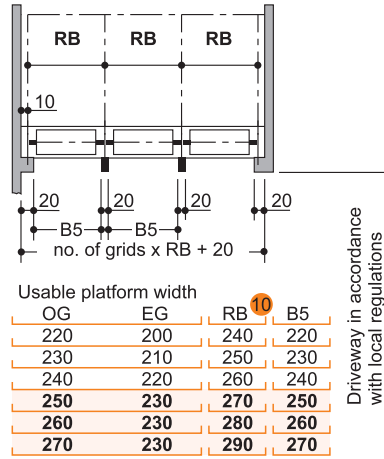
## Garages with roll doors | Width dimensions

### Roll door behind columns



Type	H	H1	H2	Roll door height
P200-345	345	165	210	263
P200-405	405	200	220	300

### Columns per each grid unit

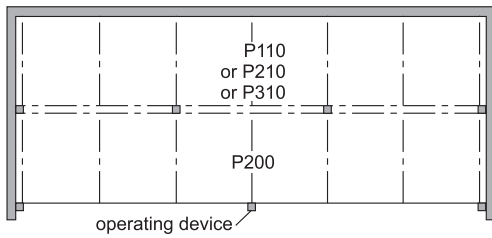


**!** End parking spaces are generally more difficult to drive into. Therefore, we recommend our wider platforms for end parking spaces. Parking larger vehicles on standard width platforms may make getting into and out of the vehicle difficult. This depends on the type of the vehicle, approach and above all, on the driver's skill.

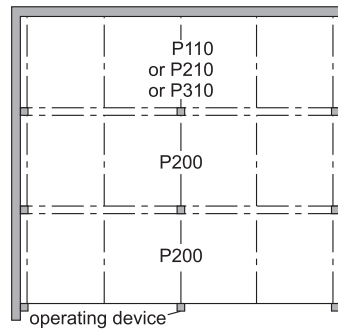
- 9** H1 = Height of the vehicle on ground floor platform.
- 10** RB = Grid unit width **must** strictly conform to dimensions quoted.

## Grid arrangement

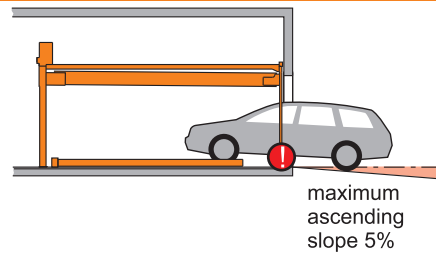
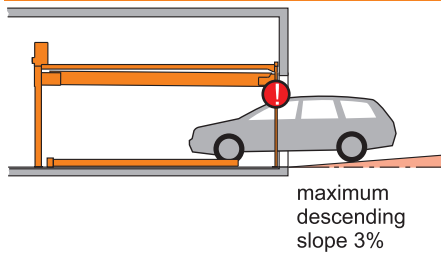
For 2 rows max. 6 grids



For 3 rows max. 4 grids

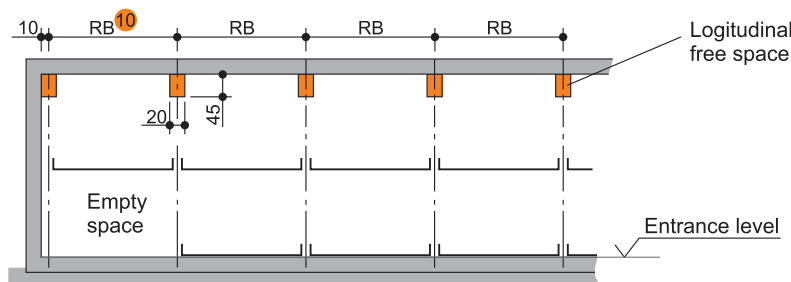


## Approach



**!** The illustrated maximum approach angles must not be exceeded. Incorrect approach angles will cause serious maneuvering & positioning problems on the parking system for which the local agency of KLAUS Multiparking accepts no responsibility.

## Longitudinal free space



**10** RB = Grid unit width **must** strictly conform to dimensions quoted.

Page 1

-Section  
-Dimensions  
-Car data

Page 2  
-Width dimensions

Page 3  
-Width dimensions  
-Grid arrangement  
-Approach  
-Free spaces

Page 4  
-Function  
-Load plan

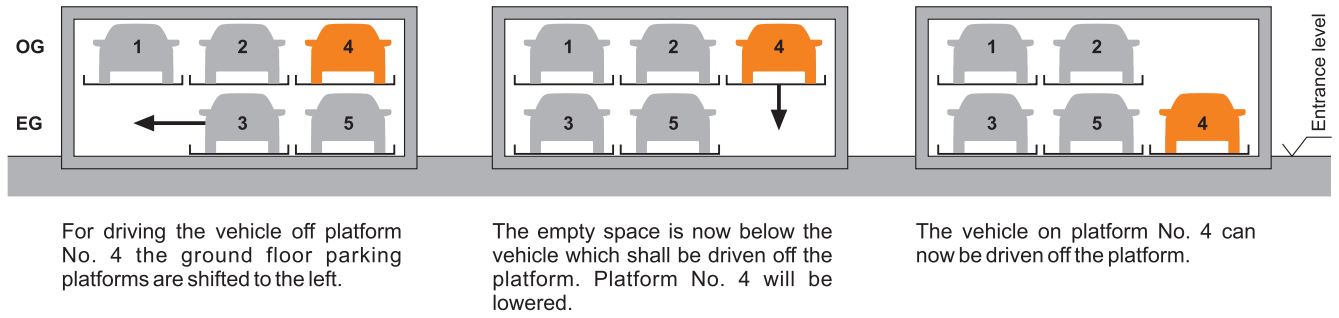
Page 5  
-Rails

Page 6  
-Electrical data  
-Technical data

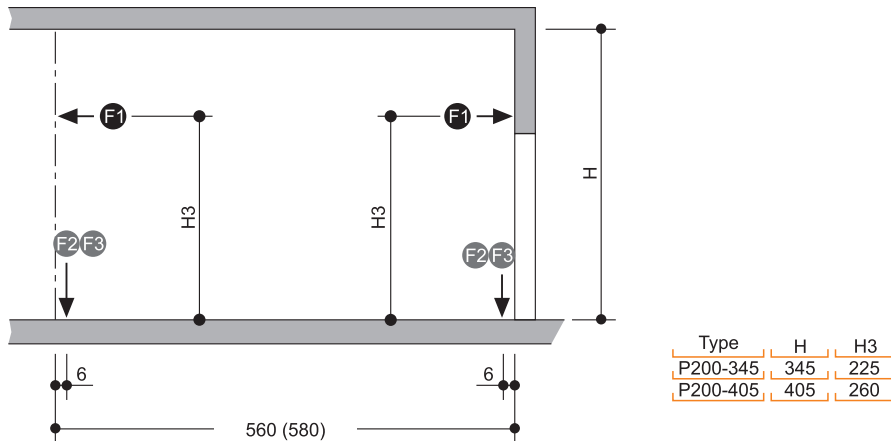
Page 7  
-To be performed by the customer  
-Description

## Function with standard numbering and identification of parking levels

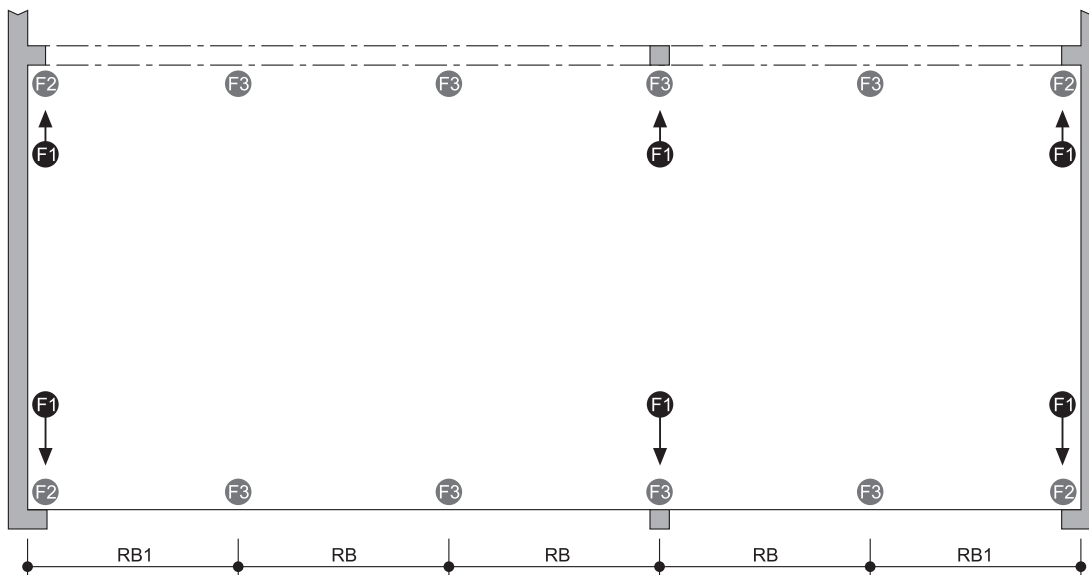
e.g. for parking space No. 4: Check first that all doors are closed, then select No. 4 on operating panel.



## Load plan



### Load plan – top view



usable platform width	RB <sup>10</sup>	RB1	platform load	F1	F2	F3 <sup>12</sup>
220	240	250	2000 kg	±0,5	+8,5	+17
230	250	260	2500 kg	±0,75	+10	+20
240	260	270				
250	270	280				
260	280	290				
270	290	300				

**!** The system is doweled to floor and walls. The drilling depth in the floor is approx. 15 cm. The drilling depth in the walls is approx. 12 cm. Floor and walls are to be made of concrete (grade of concrete min. C20/25). The dimensions for the points of support are rounded values. If the exact position is required, please contact KLAUS Multiparking.

<sup>10</sup> RB = Grid unit width **must** strictly conform to dimensions quoted.

<sup>12</sup> All forces in kN (static loads)

Page 1  
-Section  
-Dimensions  
-Car data

Page 2  
-Width dimensions

Page 3  
-Width dimensions  
-Grid arrangement  
-Approach  
-Free spaces

Page 4  
-Function  
-Load plan

Page 5  
-Rails

Page 6  
-Electrical data  
-Technical data

Page 7  
-To be performed by the customer  
-Description

## Recess/Rail system

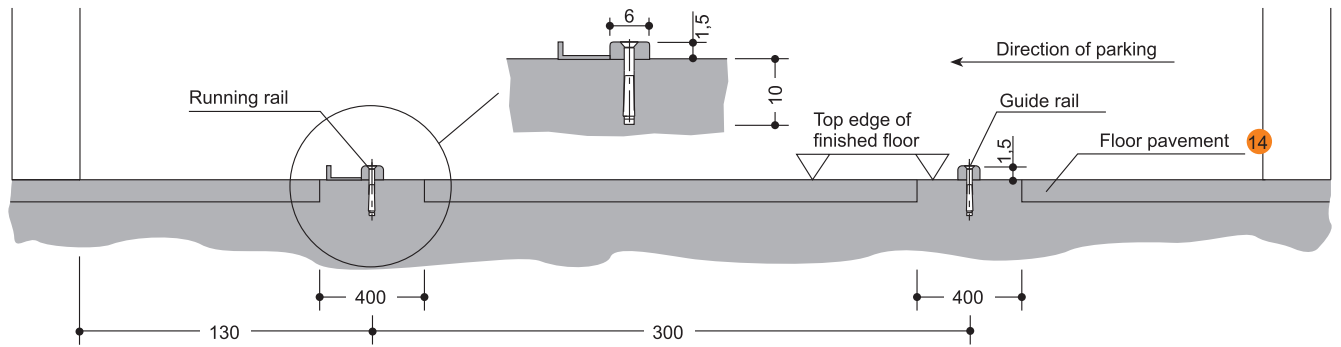
Dependent upon the structural conditions of the garage, several different options are available for installation of the rails.

Rail load by moving EG platform

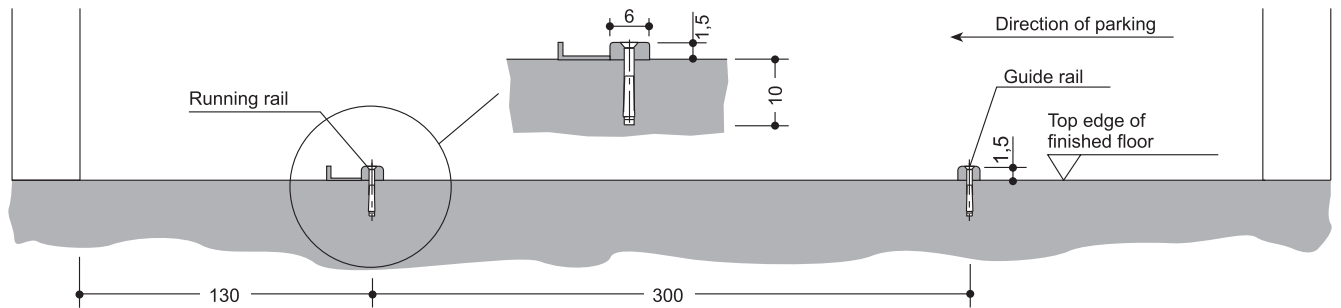
- For surface load 2000 kg: 6,5 kN per wheel

- For surface load 2500 kg: 8 kN per wheel

### Laying on strip foundation <sup>13</sup>



### Laying on finished floor <sup>13</sup>



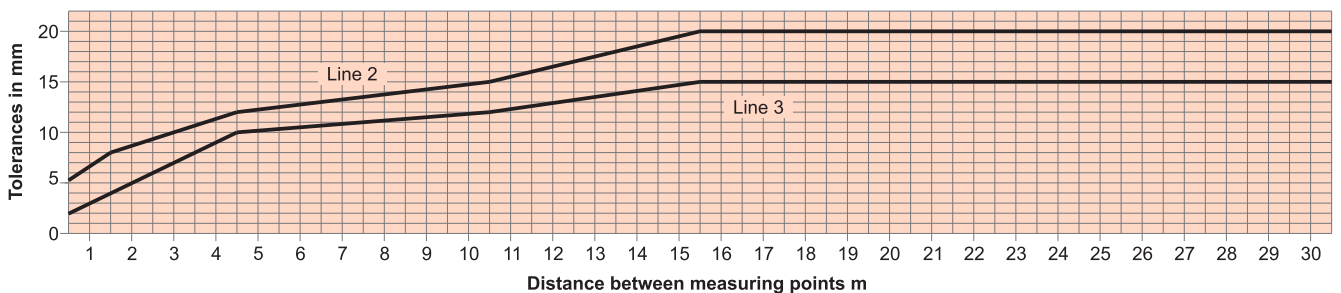
<sup>13</sup> Tolerances for the evenness of the driveway must be strictly followed as mentioned in below table of evenness and tolerances. No expansion joints are permitted within the area of the rail system.

<sup>14</sup> We do not recommend tar flooring.

## Evenness and Tolerances (abstract from DIN 18 202, table 3)

The distance between the lower flange of the ParkBoards and the garage ground must therefore not exceed 2 cm. To adhere to the safety regulations and recommendations and to get necessary even ground, the tolerance of evenness must not be exceeded. Therefore exact leveling of the ground by the client is essential.

Column	1	2	3	4	5	6
Line	Reference	0,1	1	4	10	15
2	Unfinished to surface of covers, subconcrete and subsoils for higher demands, e.g. as foundation for cast plaster floor, industrial soils, paving tiles and slabstone paving, compound floor paving. Finished surfaces for minor purposes, e.g. warehouses, cellar.	5	8	12	15	20
3	Finished grounds, e.g. floor pavement serving as foundation for coverings. Covering, tile coverings, PVC flooring and glued coverings.	2	4	10	12	15



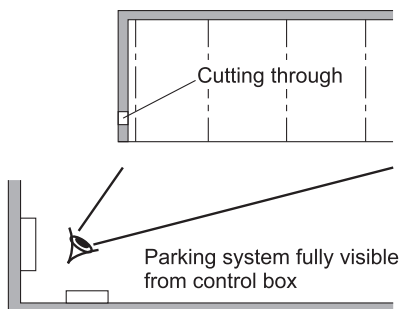
<sup>15</sup> Intermediate values are to be taken out of the diagram and must be rounded-off to mm.

- Page 1  
-Section  
-Dimensions  
-Car data
- Page 2  
-Width dimensions
- Page 3  
-Width dimensions  
-Grid arrangement  
-Approach  
-Free spaces
- Page 4  
-Function  
-Load plan
- Page 5  
-Rails
- Page 6  
-Electrical data  
-Technical data
- Page 7  
-To be performed by the customer  
-Description

## Electrical data

### Control box

The control box must be accessible at all times from outside.  
 Dimensions approx. 100 x 100 x 30 cm.  
 Cutting through of wall from control box to parking system (contact the local agency of KLAUS Multiparking for clarification).



### Electrical supply to the control box/foundation earth connector

A 3phase, 415V (±10%), 50Hz (±2%), 4 wire (3PH+N+PE) electrical supply to the control box through a 4 pole RCBO (or MCB+ELCB), 25Amp. IDN (sensitivity/leakage current)100 mA.

Supply line cable 5x4.0 mm<sup>2</sup>, copper (3PH+N+PE) with marked wire and protective conductor. Local regulations must be taken into consideration.

The functionality can be monitored on site by our fitters together with the electrician. If this cannot be done during installation for some reason for which the customer is responsible, the customer must commission an electrician at his own expense and risk.

Safety of Machinery. Electrical Equipment, grounding of the steel structure is necessary, provided by the customer (distance between grounding max. 10 m).

### Operating device

- Easy-to-survey positioning (e.g. on column).
- Protection against unauthorized use.
- May also be recessed in wall if required.

## Technical data

### Field of application

Generally parking system is suitable for the same car length for which the wheel stop is adjusted at the time of installation. In case different car is to be parked, wheel stop adjustment/confirmation from KLAUS shall be required.

### Care

To avoid damages resulting from corrosion, make sure to follow our cleaning and care instructions and to provide good ventilation of your garage.

### Environmental conditions

Environmental conditions for the area of multiparking systems:  
 Temperature range 5° C to +40° C. Maximum outside temperature of +45° C.

If the local circumstances differ from the above, please contact KLAUS Multiparking.

### Numbering

Standard numbering of the parking spaces:



Different numbering is possible only at extra cost.

Please take note of the following specifications:

- In general, the empty space must be arranged to the left.
- The numbers must be provided 8-10 weeks before the delivery date.

## To be performed by the customer

### Safety fences

Any constraints that may be necessary in order to provide protection, for pathways directly in front, next to or behind the unit. This is also valid during construction.

### Numbering of parking spaces

Consecutive numbering of parking spaces.

### Building services

Any required lighting, ventilation, fire extinguishing and fire alarm systems as well as clarification and compliance with the relevant regulatory requirements.

### Wall cuttings

Any necessary wall cuttings.

### Electric supply to the control box/foundation earth connector

Suitable electrical supply to the control box must be provided by the customer during installation. The functionality can be monitored on site by our fitters together with the electrician. If this cannot be done during installation for some reason for which the customer is responsible, the customer must commission an electrician at their own expense and risk.

Safety of machinery, electrical equipments, grounding of the steel structure is necessary, provided by the customer (distance between grounding max. 10 m).

### Door suspension

The lintel height H2 (see page 2) is absolutely necessary. With differing heights, additional fixings are required at extra charge.

### Door shields

The lintel height H2 (see page 2) is absolutely necessary. With differing heights, additional fixings are required at extra charge.

### Floor/Rails

Flooring structure in accordance with our instructions, please see page 5 (recesses, rail systems.)

Recesses, tolerances for the evenness of the driving lane must adhere to table mentioned on page no 5.

Stuffing of rail system with cement floor for the whole length.

Bringing in of floor pavement.



- Page 1  
-Section  
-Dimensions  
-Car data
- Page 2  
-Width  
-dimensions
- Page 3  
-Width  
-dimensions  
-Grid  
-arrange-  
-ment  
-Approach  
-Free  
-spaces
- Page 4  
-Function  
-Load plan
- Page 5  
-Rails
- Page 6  
-Electrical  
-data  
-Technical  
-data
- Page 7  
-To be  
-performed  
-by the  
-customer  
-Description

## Description

### General discription

Multiparking system providing independent parking spaces for cars, one on top of the other and side by side.

Dimensions are in accordance with the underlying dimensions of height and width.

The parking bays are accessed horizontally (installation deviation  $\pm 1\%$ ).

Along the complete width of the parking automat an approach lane (driving lane in accordance with local regulations) must be available. Parking spaces are arranged on two different levels, one level on top of the other.

The platforms of the upper floor (OG) are moved vertically, the platform on the ground floor(EG) horizontally. At approach level (EG) there is always one parking space less available. This vacant space is used for shifting the ground floor (EG) parking spaces sideways, thus enabling the upper platform (OG) parking space located above to be lowered to approach/ground level. Consequently, a unit of three parking spaces (1 on the ground floor, 2 on the upper floor) is the smallest unit available for this parking system.

The Parking Automat P200 allows parking of passenger cars and station wagons.

For safety reasons the platforms can only be moved behind magnetically locked doors, installed at the entrance.

All necessary safety devices are installed. This consists mainly of a chain monitoring system, locking lever for the upper platforms and magnetic door locks.

The doors can only be opened if the selected parking space has reached the park position.

### A steel framework mounted to the floor consists of:

- Seriated supports
- Steel pillars with sliding platform supports
- Cross and longitudinal members
- Running rails for the transversely movable ground floor (EG)platforms

### Platforms consist of

- Side members
- Cross members
- Platform base sections
- 1 wheel stop (on the right per parking space)
- Screws, small parts, etc.

### Lifting device for upper floor (OG) platforms

- Gear motor
- Chain wheel
- Chains
- Limit switches
- The platform are suspended on four points and guided along the supports using plastic sliding bearings

### Drive unit of transversely movable platforms on the ground floor (EG)

- Gear motor with chain wheel
- Chains
- Running and guide rollers (low-noise)
- Power supply via cable

### Control system

- Central control panel (operating device) used to select the desired parking space
- With series installation, the doors are opened manually
- Electric wiring is made from the electric cabinet by the manufacturer

## Description

### Laterally movable doors:

#### Size

Sliding door, dimensions: approx. 2500 mm x 2000 mm (width x height).

#### Frame

- Frame construction with vertical centre stay made from extruded aluminium sections

#### Safety doors

Doors and door suspensions are not included in the standard version but can be delivered at additional cost as special equipment.

#### Door actuation

- Manually, i.e. the door is opened and closed by hand

For safety reasons the movement of the platforms as always mode behind locked doors.

#### Door rails

- The running gear of each door consists of 2 twin-pair rolling gadgets, adjustable in height
- The running rails of the doors are fixed to brackets or the concrete lintel, or on a building-specific door suspension using ceiling fittings
- The guide consists of 2 plastic rollers mounted to a base late, which is doweled to the floor

## We reserve the right to change these specifications without prior notice.

KLAUS Multiparking reserves the right in the course of the technical progress to use newer or other technologies, system, processes, procedures or standards in the fulfillment of their obligations other than those originally offered.