Data Sheet

WÖHR PARKING PLATFORM 601

WÖHR Parking Platform 601 – Efficient parking in the smallest of spaces

- The WÖHR 601 Parking Platform is an innovative parking solution that increases parking capacity in car parks and garages.
- The system enables vehicles to be parked conveniently and in a space-saving manner.
- To drive onto and off the vehicle, the Parking Platform 601 is moved so, that there is sufficient distance to the neighbouring platform or wall.
- Safe and reliable functionality is characterised by a durable, robust design.
- Wide range of parking place widths.
- The maximum load is 2,000 kg or 2,600 kg.
- Power is supplied via shared electric rail on the garage ceiling. Each parking place has its own power pole.
- Arranging Parking Platforms in multiple rows, one behind the other, increases parking capacity while reducing the proportion of traffic lanes.
- The system is particularly suitable for residential buildings, office buildings, and commercial buildings. An intuitive RFID-based operating concept makes it easier for users to park on the Parking Platforms or on the conventional or mechanical parking places behind them.

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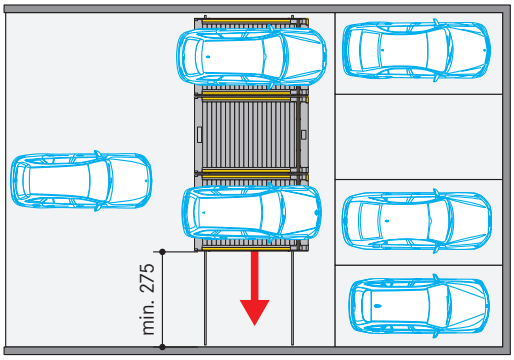
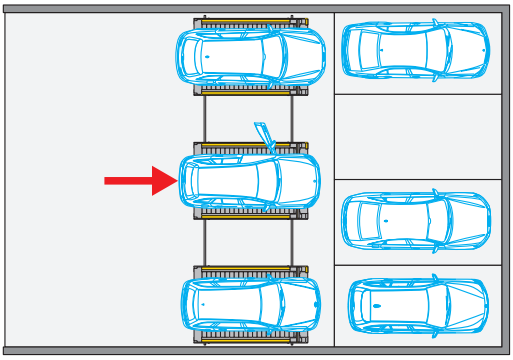
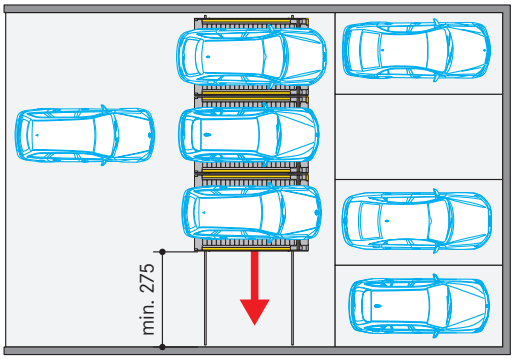
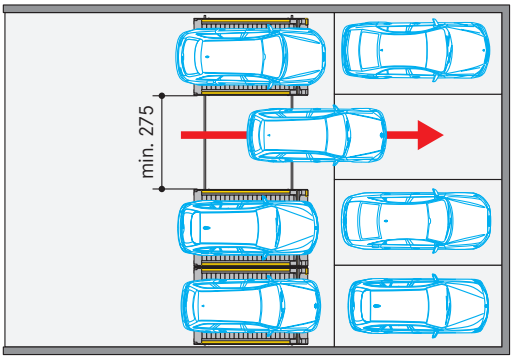
Parking on a Parking Platform





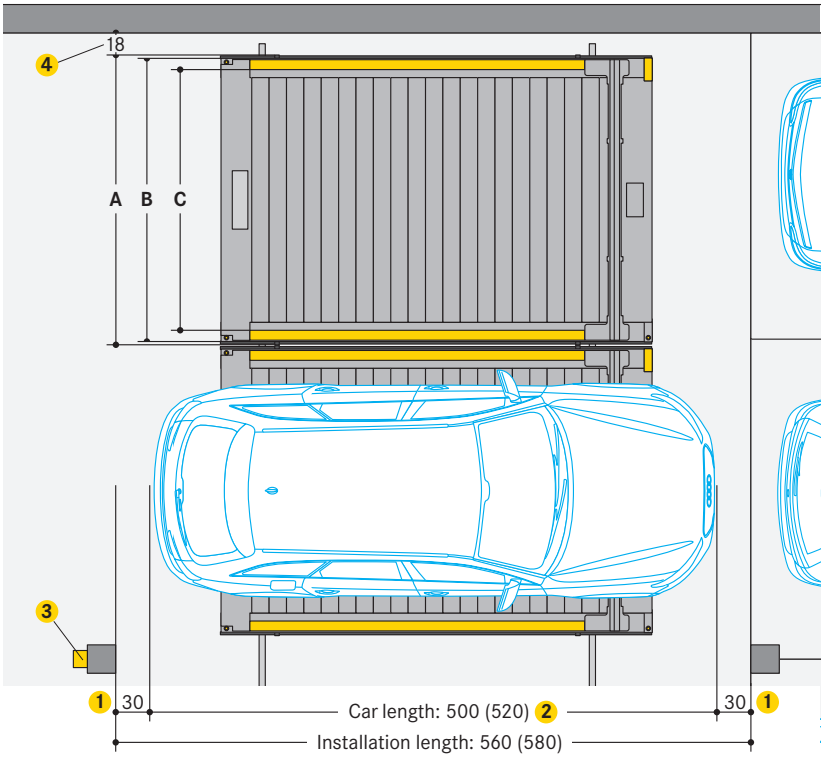
Parking on a conventional parking place





Note from the German Garage Ordinance – GaVo §4 (6): Exceptions to paragraphs §4, 1, and 2 may be permitted for garage parking places on horizontally movable platforms if there are no concerns regarding traffic safety or order and a lane width of at least 2.75 m is maintained.

Length and width dimension



Installation width A	Plate width B	Parking place width C
256	250	230
266	260	240
276	270	250
286	280	260

A plate width of at least 250 cm is recommended.

Narrower plate widths are available for replacement systems. Please contact WÖHR.

According to EAR 23 (recommendation for stationary traffic facilities), a minimum parking place width of 2.65 m is recommended for single-sided entry and exit from parking places. Parking platforms 601 always comply with this recommendation, as they are moved for driving onto and off the vehicle and for getting in and out of the vehicle in such a way that there is sufficient distance to the adjacent platform or wall.

1. 30 cm safety clearance according to DIN EN 14010:
   - between the front or rear bumper of a car parked on the parking platform
   - between fixed parts of the surroundings or another car
2. Car length 500 cm = installation length 560 cm
   Car length 520 cm = installation length 580 cm
   - for car lengths of 520 cm, please contact WÖHR.
   - when using light barriers, the safety distance of 30 cm (front/rear) can be reduced. Please contact WÖHR.
3. Operation device
4. Distance to the wall.

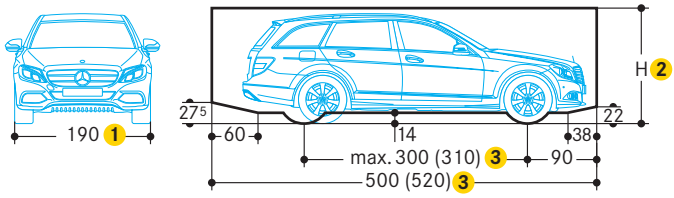
Note

The entire system and its movement sequences must be visible from the operation device.

Dimensions

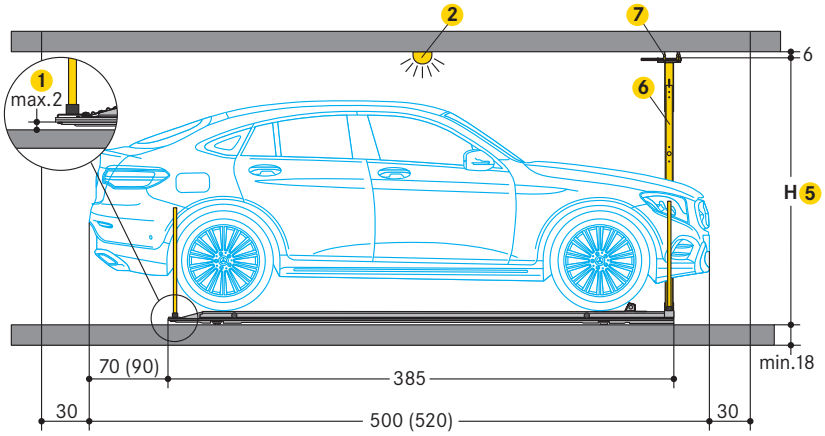
- all dimensions specified are the minimum, finished dimensions
- tolerances must be taken into consideration
- the evenness of the floor has priority as per DIN 18202
- all dimensions are given in cm

Clearance profile

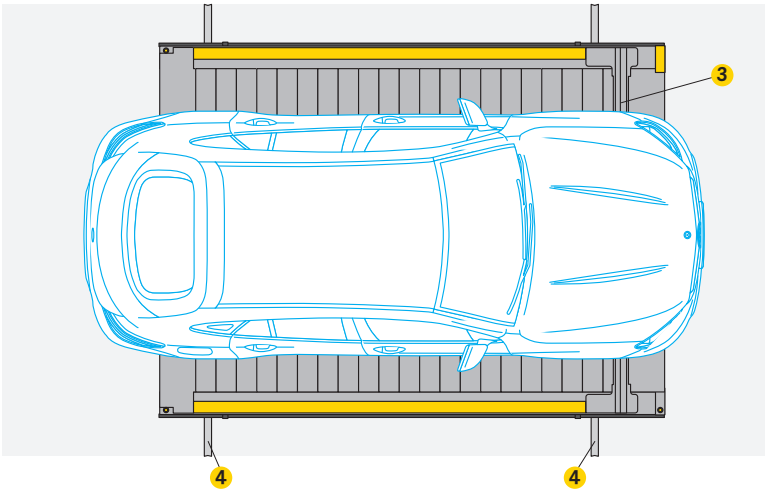


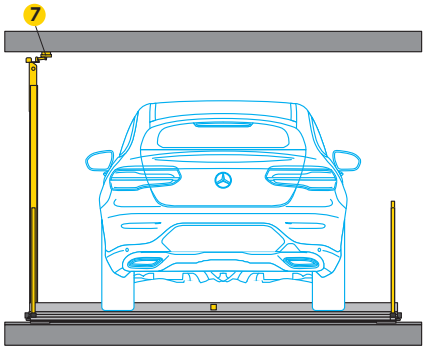
1. Maximum track + tire width for a parking place width of 230 cm.
2. The maximum height of cars depends on the structural conditions.
3. For car lengths of 520 cm and axle distances greater than 300 cm, please contact WÖHR.

Electric rail on the ceiling

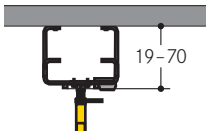


( ) Dimensions in brackets for car length 520 cm





1. The maximum gap between the Parking Platform and the floor is 2 cm. This meets the safety standards according to DIN EN 14010.
2. Flashing light
3. Fixed wheel stop
4. Running rail
5. Clear height according to local regulations (height current collector adjustable from approx. 200 to 225 cm)
6. Power pole:
   - on the left for left-hand drive cars
   - on the right for right-hand drive cars
7. Electric rail
   - height 6 cm
   - for ceiling heights greater than 231 cm, adjustable ceiling consoles ranging from 19 cm = 250 cm ceiling height to a maximum of 70 cm = 301 cm ceiling height are required at extra cost. Please contact WÖHR..

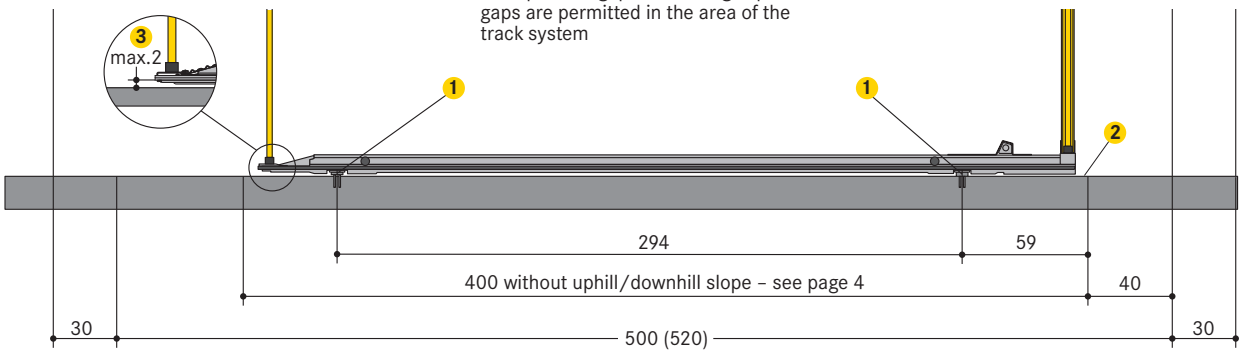


Track and floor details

Track loading due to a moving traffic load:
- Parking Platform 601-2,0: max. 7,5 kN per track roller
- Parking Platform 601-2,6: max. 7,6 kN per track roller

Installation of the running rails:
- meter markers are to be permanently attached by the customer
- do not use cast asphalt!
- level according to DIN 18202, table 3, line 3
- no expansion gaps or building separation gaps are permitted in the area of the track system

For any subsequent installation of the parking platforms, in the parking area, an additional screed is to be taken into account by the customer, depending on the floor evenness. The measures are decided after a levelling.



1. Running rail
2. Finished floor
3. The maximum gap between the Parking Platform and the floor is 2 cm. This meets the safety standards according to DIN EN 14010.

Evenness and tolerances

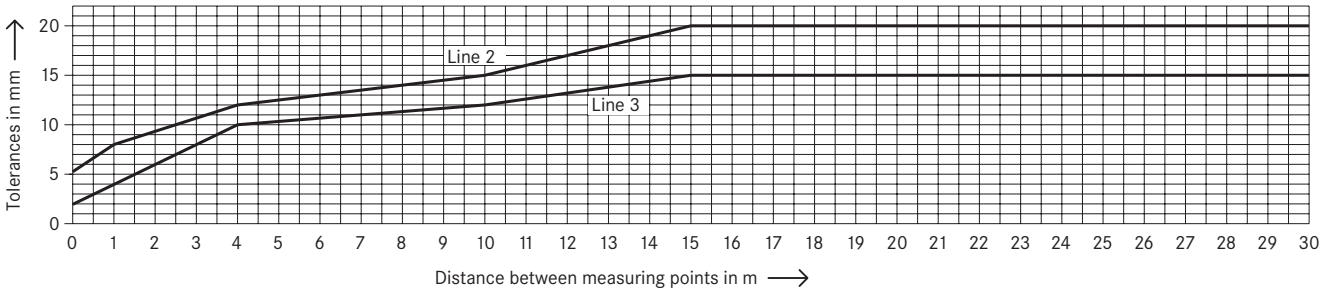
According to DIN EN 14010, the safety clearance between the outer lower edges of the parking platforms and the garage floor must not exceed 2 cm.

In order to comply with the requirement and to obtain the necessary floor level, the tolerances of the evenness of the finished floor cannot be exceeded according to DIN 18202, table 3, line 3. Therefore, exact levelling of the floor by the customer is essential.

Abstract from DIN 18202, table 3

Column	1	2	3	4	5	6
Line	Reference	Vertical measurements as limits in mm with measuring points distances in m to* 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, compund floor paving. Finished surfaces for minor purposes, e.g. warehouses, cellars.	5	8	12	15	20
3	Finished grounds, e.g. floor pavement serving as foundation for coverings. Coverings, tile coverings, PVC flooring and glued coverings.	2	4	10	12	15

* Intermediate values are to be taken out the diagram and must be rounded-off to mm.



Measuring points: finished floor

The evenness of a surface is tested by gauge measurements between two measuring points on the surface irrespective of its position and inclination.

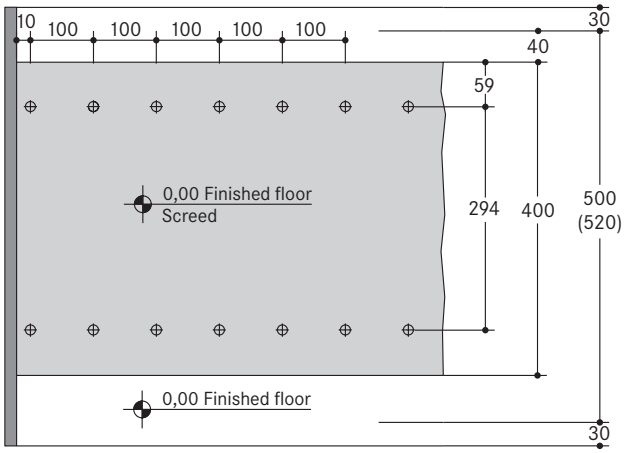
When inspected by WÖHR only a random test is made in areas which appear to be uneven.

For the uniform verification of the evenness of the floor surface, the measuring points are defined as surveying and control points.

For the finished floor:

⊕ Measuring points in the longitudinal distance of 100 cm for checking the unevenness as per DIN 18202, table 3, line 3 and / or as per diagram

( ) Dimensions in brackets for car length 520 cm

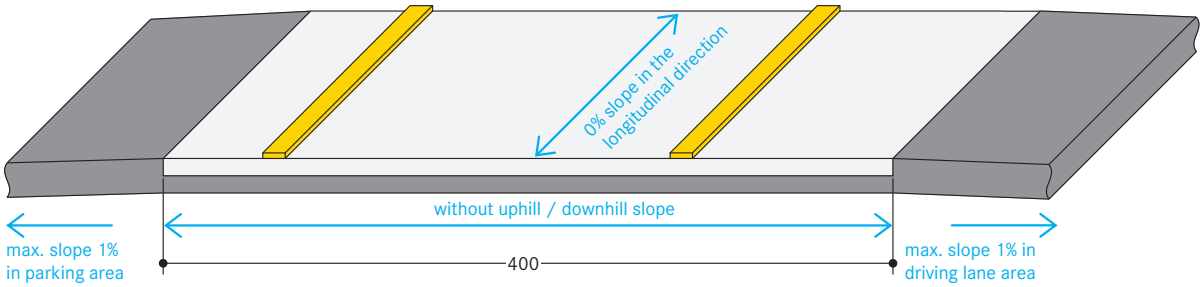


Drainage

According to DIN EN 14010 and the accident prevention regulations, the distance between the lower edge of the parking platform and finished floor is max. 2 cm.

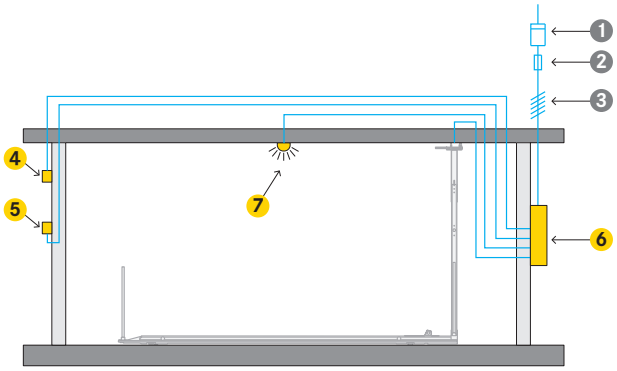
Sloping in the parking area is prohibited.

For water drainage, the areas outside the parking platform area are to be provided with a slope of max. 1%.



Electrical specifications (electric rail on the ceiling)

Installation diagram



Cabling preparation to be performed by the customer:

- up to the main switch to be in place prior to starting the installation operations
- connection to the main switch during installation
- clockwise rotating field must be applied
- system functional check testing can be performed by WÖHR together with the electrician provided by the customer
- if requested at a later date, functional check testing can be performed by WÖHR at extra cost

To be performed by the customer

Item	Quantity	Description	Position	Recurrence
1	1 piece	Power meter	In the feed cable	1 x per control
2	1 piece	Fuse protection or automatic circuit breaker according to DIN VDE 0100 part 430: 3 x 16 A slow blow	In the feed cable	1 x per control
3	Based on site conditions	According to local power supply regulations 3 phases + N + PE* 230/400 V, 50 Hz	Feed cable to main switch	1 x per control

* According to DIN VDE 0100 sections 410 and 430 (no permanent load) 3 phases + N+ PE (three phase current)

Scope of delivery by WÖHR (unless otherwise specified in the order)

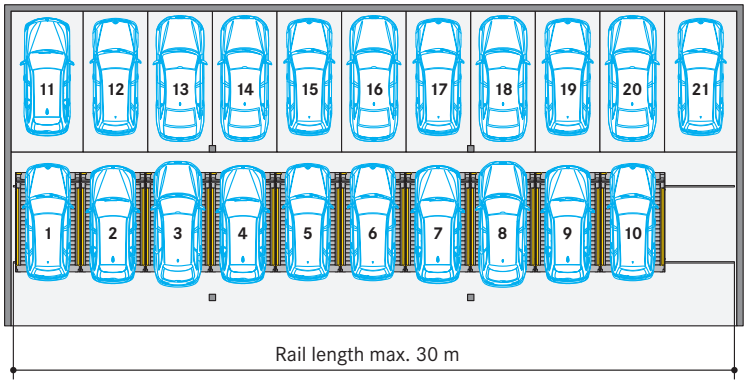
Item	Description
4	Lockable main switch
5	Operation device
6	Control unit (position must be defined object-dependently) Space demand (height x width x depth): – 1 to 8 Parking Platforms: 800 x 1000 x 210 mm – per 8 further Parking Platforms: 600 x 400 x 210 mm
7	Flashing light
Without position numbers: total cabling of the system	

Arrangement possibilities and parking place numbering (with 2 rows)

Different numbering of parking places is possible at extra cost (software changes are necessary).

2 rows one behind the other (up to 30 m rail length)

Planning example with 10 Parking Platforms with a parking place width of 230 cm:



Row 2:
Conventional parking places

Row 1:
Parking Platform 601

No light barriers are required for rail lengths up to 30 m, provided that the safety distances specified on page 3 are observed.

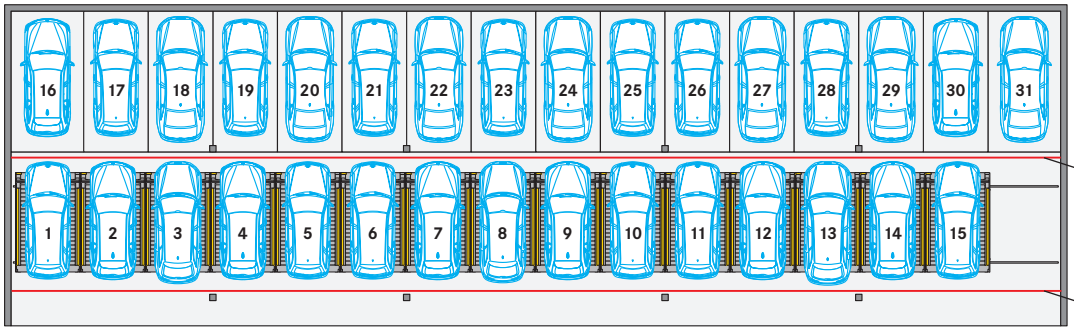
The number of possible Parking Platforms depends on the parking place width (see table). The final number of Parking Platforms may vary depending on the requirements and the design of the building (e.g. width of the pillars, etc.).

Installation width A (1)	Plate width B (1)	Parking place width C (1)	Number of Parking Platforms
256	250	230	11
266	260	240	10
276	270	250	9
286	280	260	9

(1) See graphic on page 2

2 rows one behind the other (over 30 m rail length)

WÖHR recommends: max. 15 Parking Platforms per row.
Planning example with 15 Parking Platforms with a parking place width of 230 cm:



Row 2:
Conventional parking places

Row 1:
Parking Platform 601

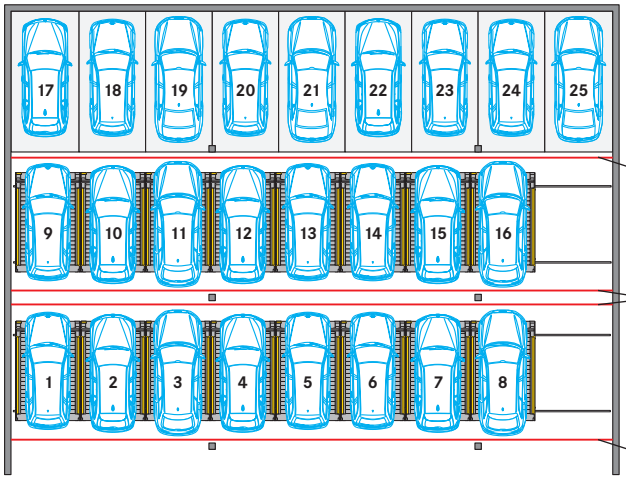
(2) If the rail length is more than 30 m, light barriers according to DIN EN 14010 must be provided.

Arrangement possibilities and parking place numbering (with 3 and 4 rows)

Different numbering of parking places is possible at extra cost (software changes are necessary).

3 rows one behind the other

WÖHR recommends: max. 8 Parking Platforms per row.
Planning example with 16 Parking Platforms with a parking place width of 230 cm:



Row 3:
Conventional parking places

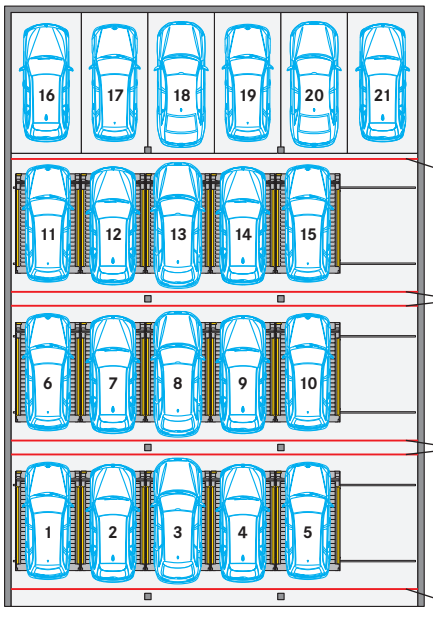
Row 2:
Parking Platform 601

Row 1:
Parking Platform 601

(2) Light barriers must be provided for multi-row arrangements according to DIN EN 14010.

4 rows one behind the other

WÖHR recommends: max. 5 Parking Platforms per row.
Planning example with 15 Parking Platforms with a parking place width of 230 cm:



Row 4:
Conventional parking places

Row 3:
Parking Platform 601

Row 2:
Parking Platform 601

Row 1:
Parking Platform 601

(2) Light barriers must be provided for multi-row arrangements according to DIN EN 14010.

Notes and directions

Scope of application
- suitable for residential buildings, office buildings and business premises
- only for long-term users that have been instructed on how to use the system

Operation
- number of parking platforms through RFID
- parking platforms are moved in such a way that access to the selected parking space is freely accessible
- getting in and out area can also be provided on the right side

Temperature
- system operating range: +5° to +40°C
- humidity: 50% at +40°C
- in the event of changes to system conditions please contact WÖHR

Lighting
- sufficient lighting of the driving aisle and of the parking places must be performed by the customer

Noise emission
- low running noise due to ball bearing rollers

Fire safety
- all fire safety requirements and all mandatory equipment (fire extinguisher and fire alarm systems, etc.) must be performed by the customer

Maintenance
- WÖHR and all the WÖHR partners abroad provide an installation and customer service network
- regular, annual maintenance is provided subject to the stipulation of a maintenance agreement

Prevention of corrosion damage
- all operations listed in the WÖHR Cleaning and Maintenance Instructions are to be performed regularly (independently of maintenance operations)
- zinc-plated parts, components and platforms are to be kept clean of dirt, road-salt and any other debris (due to corrosion hazards)
- always keep the garage well ventilated and deaerated

Declaration of conformity
The parking systems correspond to:
- EC Machinery Directive 2006/42/EC
- DIN EN 14010

Surface protection
- please consider the information on surface protection!

Tender specification
- please consider the specifications!

Parking Place-Profile
- please consider the product information Parking Place-Profile!

Electromobility
- please consider the product information power supply!
- depending on the position of the charging point on the electric vehicle, collision points with protruding plugs and charging cables can occur

Product liability
WÖHR assumes no liability for any damage resulting from crushing hazards if the floor implementation notes and the flatness tolerances are exceeded. The distance between the lower edge of the parking platform and the floor must be max. 2 cm.

Construction formalities
- the documentation necessary for construction permit applications is provided by WÖHR on demand

Construction alterations and/or modifications
- the right to construction or model modifications and/or variations is hereby reserved
- the right to any subsequent part modification and/or variation and amendments in procedures and standards due to technical and engineering progresses or due to environmental regulation changes is also hereby reserved