Data Sheet Wöhr Combilift 551-2.0

Suitable for condominium and office buildings.
For permanent use only!*

* In case of short time user (e.g. for offices, hotels, a.s.o.) technical adjustments are required. Please contact WÖHR!

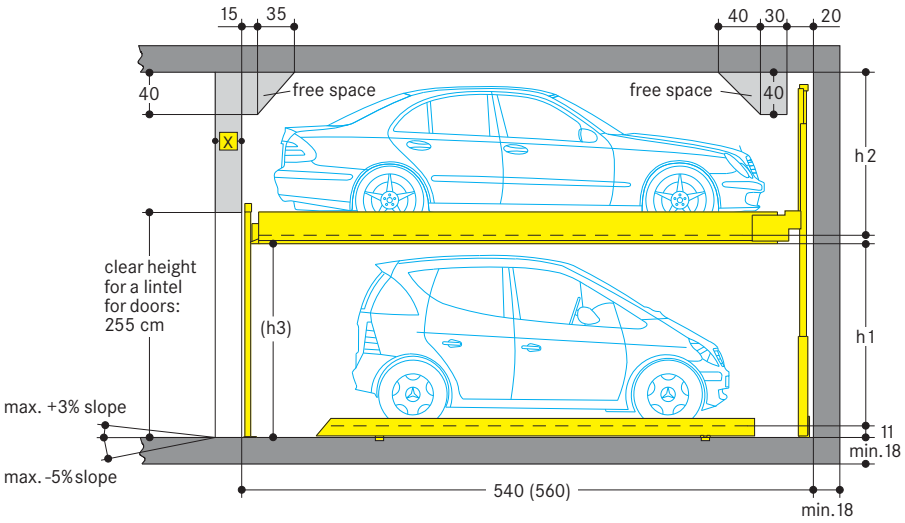
Platforms are in horizontal position to drive on.

Load per platform max. 2000 kg (load per wheel max. 500 kg)

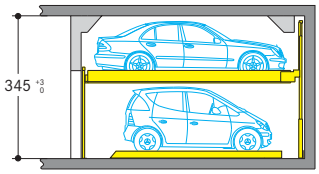
Special reinforced units for higher platform loadings are available (see 551-2.6)

X = to be clarified with door supplier.

Dimensions in cm



Standard type 551 · 2000 kg



	car height	distance
UL*	saloon/estate cars up to 150 cm	h2 = 153
EL*	saloon/estate cars up to 165 cm	h1 = 170

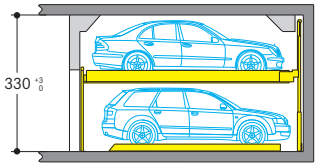
With the greater h2 height, higher cars can be parked. The car height must not exceed 165 cm.

Access height h3 = 181 cm.

* UL = upper level, EL = entrance level

Please attend to restricted car heights on upper platforms!

Economic type 551 · 2000 kg

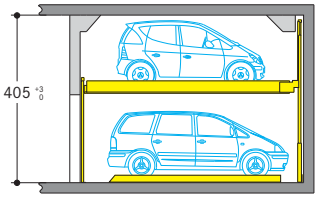


	car height	distance
UL	saloon/estate cars up to 150 cm	h2 = 153
EL	saloon/estate cars up to 150 cm	h1 = 155

Access height h3 = 166 cm.

Please attend to restricted car- and platform distance height!

Comfort type 551 · 2000 kg

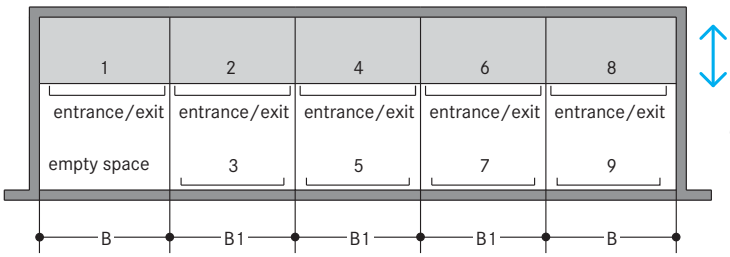


	car height	distance
UL	saloon/estate cars up to 175 cm	h2 = 178
EL	saloon cars and vans up to 200 cm and max. 2000 kg	h1 = 205

With the greater h2 height, higher cars can be parked. The car height must not exceed 200 cm.

Access height h3 = 216 cm.

Width dimensions



Space required B	B1	gives clear platform width UL	gives clear platform width EL
260	250	230	207*
270	260	240	217*
280	270	250	227*
290	280	260	227*
300	290	270	227*

* the space to get in and out of the car for platforms in entrance level is increased by 35 cm driver side.

In each grid a entrance/exit is necessary.

Notes

1. For standard version no doors are necessary. Doors can be installed either for manual or automatic opening.
2. Arrangements start with 2 grids for 3 cars, 3 grids for 5 cars.
3. Car length max. 500 cm with an installation length of 540 cm, car width 190 cm. In case of special platform widths narrower than 230 cm respectively, the maximum vehicle width is reduced accordingly.
4. For very large cars an installation length of 560 cm is recommended. This length offers larger safety distances for potential future developments or projects with short term parkers such as hotels or similar.
5. In front of each grid a 10 cm wide, yellow-black marking according to ISO 3864 has to be provided by the purchaser (see “statics and construction requirements“ on page 3).
6. It is not possible to have channels or undercuts and/or concrete haunches along the floor-to-wall joints. In the event that channels or undercuts are necessary, the system width needs to be reduced or the installation width needs to be wider.
7. The manufacturer reserves the right to modify or alter above specifications.

Wohr Parking Systems Pvt. Ltd. | Gat No.1098, Urawade Road, Pirangut, Tal. Mulshi, Dist. Pune - 412 115 Maharashtra, India +91 20 6674 8848 | www.wohrparking.in

Evenness tolerances

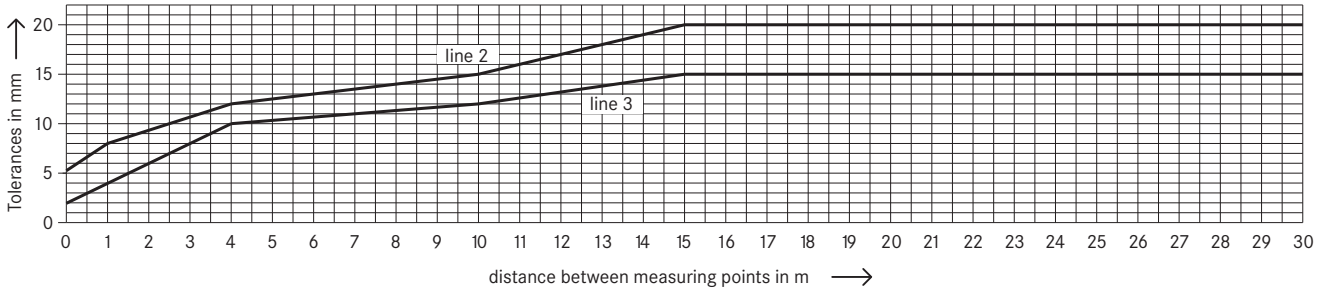
According to EN 14010 the danger of trapping between nonparallel platforms edges and the groundhastobeprevented.The distance between the lower flangeof the platforms and the garage ground must therefore not exceed 2cm.

To adhere to the safety regulations and to get the necessary even ground, the tolerances of evenness to DIN 18202, table 3, line 3, must not be exceeded. Therefore exact levelling of the ground by the client 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.



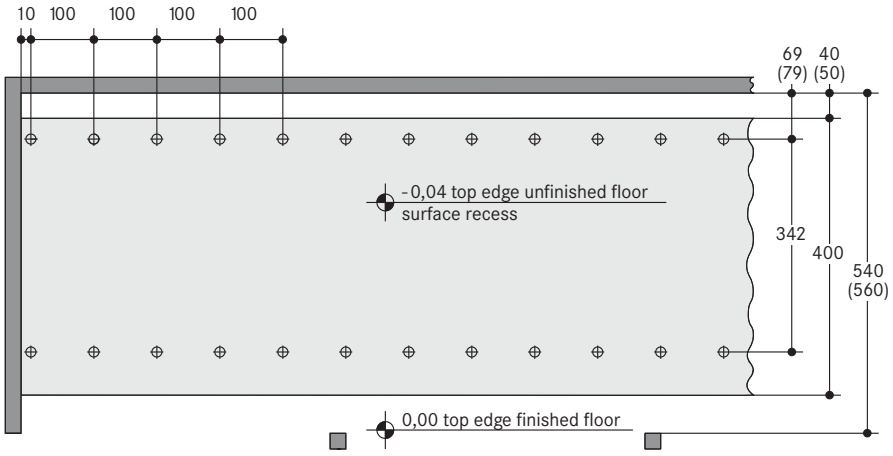
Check points

The evenness of a surface is checked independently of its position and slope by bore hole gauges between two check points on the surface. WÖHR normally make a random test using single measurements in case of obviously inaccurate surfaces.

For uniform examination of the evenness of the ground surface the following points are defined as measuring and check points:

a) for surface recess
b) for finished floor.

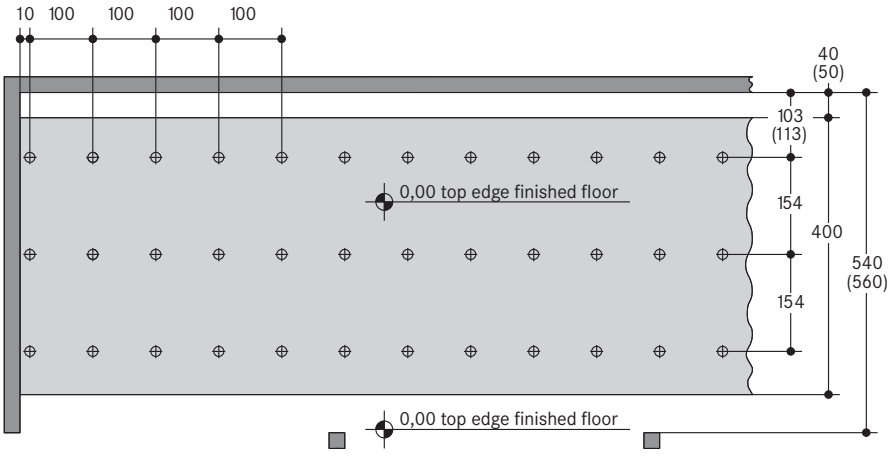
a) Layout for surface recess width 4m



⊕ Measuring points at 100 cm points for checking the unevenness acc. to DIN 18202, table 3, line 2, or acc. diagram

( ) dimensions in brackets for increased length

b) Layout for finished floor after placing floor pavement



⊕ Measuring points at 100 cm points for checking the unevenness acc. to DIN 18202, table 3, line 3, or acc. diagram

( ) dimensions in brackets for increased length

Track Installation · Flooring works · Drainage

The moving rail load of each platform wheel is max. 6 kN.

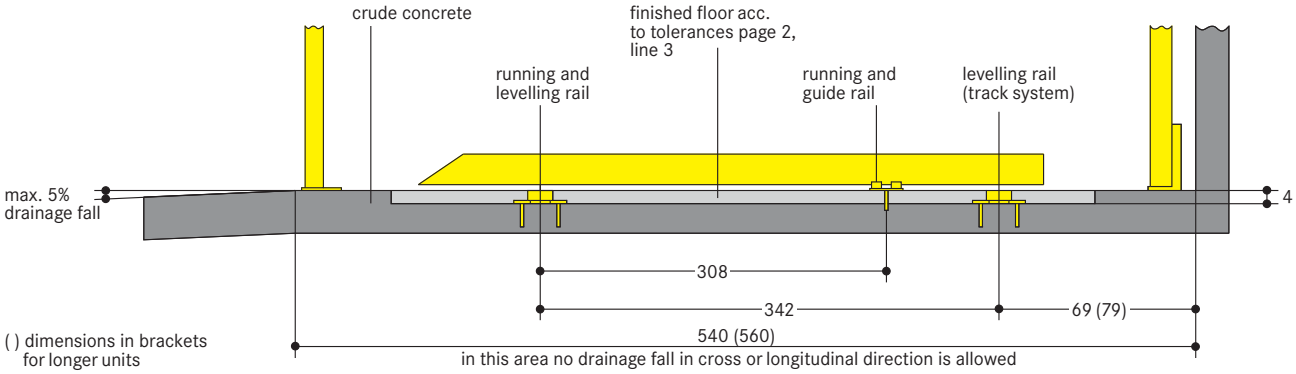
The evenness of the floor + screed must be achieved according to DIN 18202, table 3, line 2. After checking the floor + screed the levelling rails are mounted on top of the highest point.

The underlining and fixing of the levelling rails occurs at the intended fixing points. For the laying of the running and levelling rails a meter tear is to be attached permanently for every railway track by the client.

The screed is to be peeled off by the client on height of the levelling rails. Do not use mastic asphalt.
The running and guide rails are fastened after placement of the screed with bolts. Evenness according to DIN 18202, table 3, line 3.

In the area of the railway track no expansion gap or building dividing gaps are allowed.

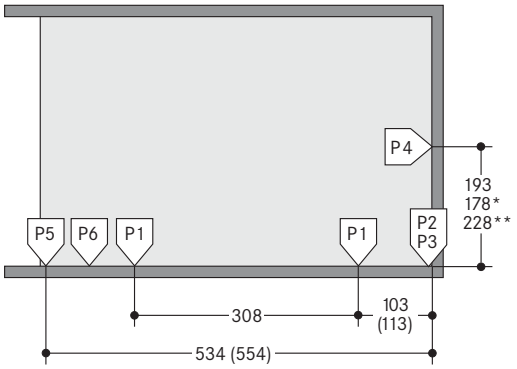
Due to the technical requirements there is no drainage fall allowed in the area of the system.



Width dimensions and statics

All dimensions shown are minimum. Constructional tolerances must be taken into consideration. **All dimensions in cm.**

Section



( ) dimensions in brackets for longer units

* dimensions for economic type

** dimensions for comfort type

P1 = + 6,0 kN [1)]
P2 = –10,0 kN
P3 = +25,0 kN
P4 = ± 1,0 kN
P5 = + 9,0 kN / – 7,0 kN
P6 = – 1,0 kN

1) all static loadings include the weight of the car

Bearing loads are transmitted by wall plates with min. 30 cm² surface and to the floor by base plates with min. 350 cm² surface.

Wall and base plates will be fixed by heavy duty anchor bolts to a drilling depth of 10-12cm. When fixing to the waterproof concrete floors chemical anchors are employed (to be advised by Wöhr).

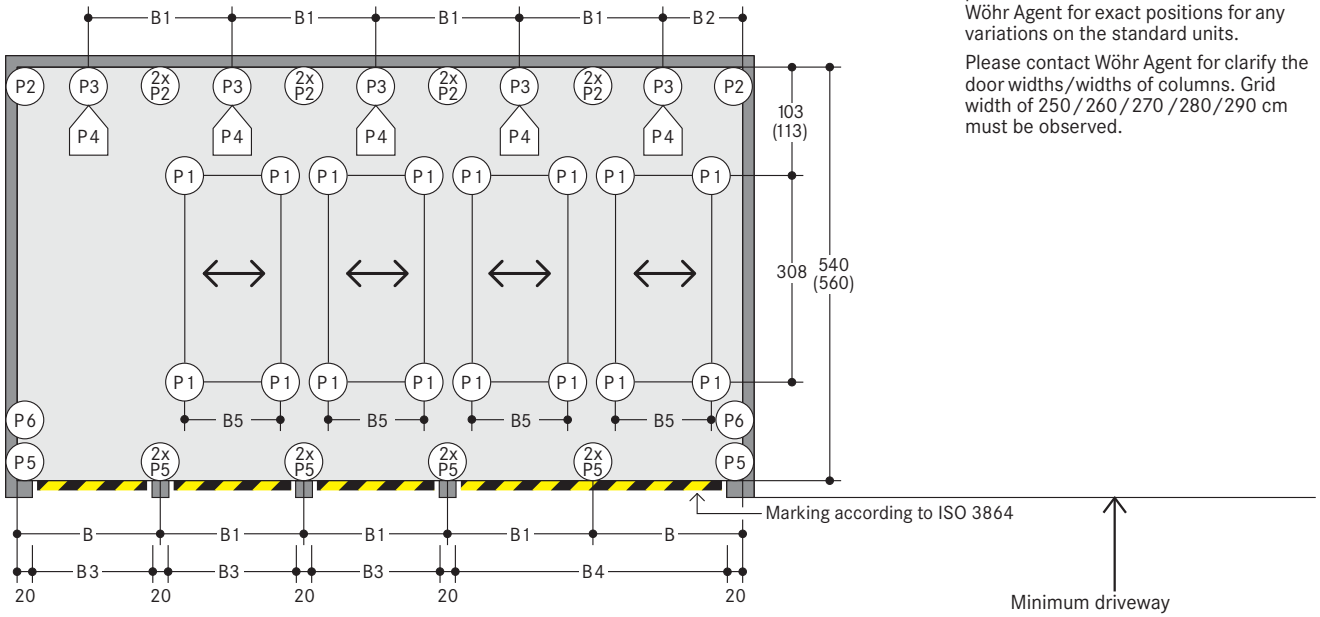
Base plate thickness min. 18 cm. Rear wall and base plate must be formed of concrete and must have a flat surface without protrusions.

Concrete quality according to the static requirements of the building, but for the dowel fastening we require a concrete quality of min. C20/25.

The specified lengths to the support points are mean values. Please contact Wöhr Agent for exact positions for any variations on the standard units.

Please contact Wöhr Agent for clarify the door widths/widths of columns. Grid width of 250/260/270/280/290 cm must be observed.

Ground plan



Space required					gives clear platform width	
B	B1	B2	B3	B4	EL (B5)	UL
260	250	135	230	480	207	230
270	260	140	240	500	217	240
280	270	145	250	520	227	250
290	280	150	260	540	227	260
300	290	155	270	560	227	270

Hydraulic power packs

For the accommodation of the hydraulic power packs an additional space is required which will be determined during the verifications of the drawings, e.g. in a wall recess.
Dimensions:
length = 100 cm
height = 140 cm
depth = 35 cm

Electrical data

Main electrical supply 230/400V, 50 Hz, 3 phase. Power consumption 1.5/3.0 kW. Fuse or automatic circuitbreaker 3 x 16 A slow blow acc. to DIN VDE 0100 p. 430 and main supply line 5 x 2,5 mm^2 to the switch cabinet, provided by client. In compliance with the DIN EN 60204 standard provisions, all systems must be connected directly on site with an earthed equipotential bonding. The lead-out connection must be at a 10 m distance!

Switch cabinet

1. Main switch is installed well accessible at driveway in a height of 160 cm to 190 cm.
2. The switch cabinet must be installed visible and near by the system. Area for installation has to be provided by the client. The size of the switch cabinet is 80 x 110 x 21 cm.
3. The wall opening of 15 cm diameter is required between the switch cabinet and the system itself. Please contact Wöhr Agent to clarify.
4. The control is designed to operate between +5° and +40°C. Atmospheric Humidity: 50% at +40°C. If the local circumstances differ from the above please contact Wöhr (if necessary, the switch cabinet has to be provided with a heating).
5. If the system is installed outside the switch cabinet needs to be inside a sun-/water-/wind proof box. In front of the switch cabinet an area of 100 cm is required to work.

General product information

The combilift Type 551 consists of 2 platform rows, one above the other. In front (to the full width) of the installations is a drive way which is situated on the lower platform row (access level). The lower platform row consists of one platform less than the upper level.
In order to access a platform on the upper level, the lower level platforms (access level) shift laterally into the free space.
The selected upper platform is now lowered vertically into the free space provided in the access level. The lowering of the platform is by means of push button control (hold-to-run-device), the hoisting of the platform is fully automatic.

Hotel garage

If used by hotel guests, the installation requires special planning and construction. Please ask for details.

Noise protection

Basis is the German DIN 4109 “Noise protection in buildings”.

With the following conditions required 30 dB (A) in rooms can be provided:

- noise protection package from our accessory
- insulation gure of the construction of min. $R'_W = 57$ dB
- walls which are bordering the parking systems must be done as single wall and deflection resistant with min. m’= 300 kg/m^2
- solid ceiling above the parking systems with min. m’= 400 kg/m^2

At differing constructional conditions additional sound absorbing measures are necessary.

The best results are reached by separated sole plates from the construction.

Increased noise protection:

If increased noise protection must be provided planning has to be confirmed on a project basis by Wöhr (further building measures are required).

Temperature

The installation is designed to operate between +5°and +40°C. Atmospheric Humidity: 50% at +40°C. If the local circumstances differ from the above please contact Wöhr.

Numbering of the parking spaces

1. The empty space of the Combilift is always on the left in the entrance level.
2. The numbering is as follows:

UL	1	2	4	6	8
EL		3	5	7	9

3. The numbering for each system starts with 1 as above.
4. Different numbering of parking spaces is possible at extra cost (software changes are necessary).

Illumination

Illumination has to be considered acc. to local requirements by client.

Free spaces

Special drawings for free spaces to accommodate air ducts or other pipes can be requested at Wöhr Agent!

Railings

If walkways are arranged directly to the side or behind the systems, railings have to be provided by client acc. to local requirements, height min. 200 cm – this is applicable during the construction phase too.

Maintenance

Regular maintenance by quali ed personnel can be provided by means of an Annual Service Contract.

Protection against corrosion

Independent of a maintenance workings has to be carried out acc. to Wöhr Cleaning and Maintenance Instruction regularly.

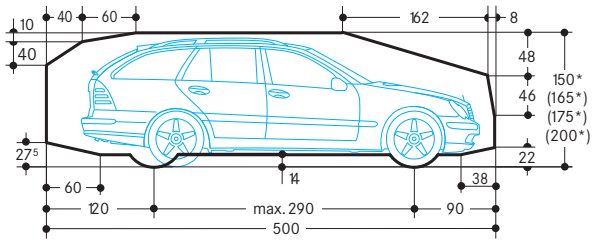
Clean up galvanized parts and platforms of dirt and road salt as well as other pollution (corrosion danger)!

Pit must be always ventilated and dearated well.

Dimensions

All dimensions shown are minimum. Construction tolerances must be taken into consideration. All dimensions in cm.

Clearance profile (standard saloon/estate car)



* The total car height includes roof rail and antenna xture and must not exceed the mentioned max. height dimension.

Note

If doors are planned we recommend installing an empty pipe for cabling to the control panel from the rear. This empty pipe should be 120 cm above ground level in the centre of a column.