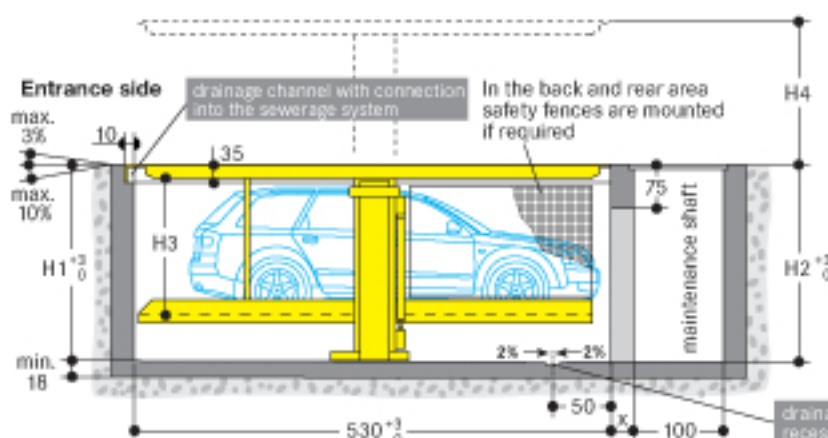


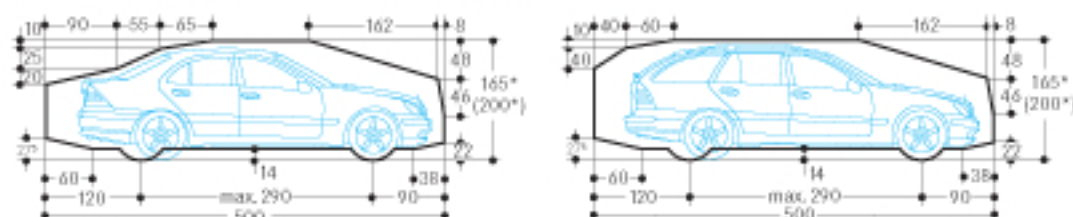
Suitable for private houses, condominium and for retrofitting of old buildings. For permanent use only!
Horizontal even platforms.
Platform load max. 2000 kg (wheel load max. 500 kg).

■ Parklift 461



	pit depth front H1	pit depth rear H2	platform distance H3	platform height H4	max. car height
Parklift 461	250 285	255 290	170 205	210 245	165 200
Parklift 462	425 495	430 500	170 205	455 565	165 200
Parklift 463	605	610	170	565	165

■ Clearance profile (standard saloon/estate car)



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

■ Notes

- Car width max. 190 cm (see width details page 2). In case of special platform widths narrower than 230 and 460 cm respectively, the maximum vehicle width is reduced accordingly. For cars with two outside mirrors, a minimum platform width of 250 cm or 500 cm is recommended.
- The upper platform is a welded construction (manufactured acc. to EN ISO 13920 with the tolerance class C). Finishes are available at the customers request, for example sand bedding/pavement slabs, sand bedding/pebbles, topsoil/lawn a.s.o. Please contact Wöhr for details of maximum allowed loadings.
- When lowered, the upper platform is even to floor level and can be driven over by cars (max. weight 2500 kg, wheel load max. 625 kg). On special conditions the upper platforms of Parklift 461 and 462 may be used as parking places - please contact Wöhr.
- In case higher loading is required e.g. passage for fire brigade, please contact Wöhr.
- A locked key arrangement ensures that the unit is always left in the lowered position after each use.
- A separate maintenance shaft with ladder is required. A safe maintenance access with a door has to be provided by the customer - please contact Wöhr. This shaft is important for ventilation and passage to the pit and can also house the hydraulic power pack.
- At the edge of the pit a 10 cm wide, yellow-black marking according to ISO 3864 has to be provided by the customer (see "statics and construction requirements" on page 3).
- The manufacturer reserves the right to modify or alter above specifications.

Width dimensions

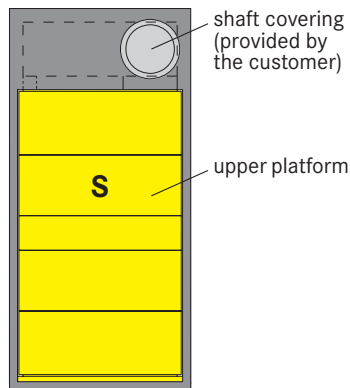
All dimensions shown are minimum. Construction tolerances must be taken into consideration. All dimensions in cm.
Alle Maße in cm.

The access to the Parklift is possible with max. 3% declination and max. 10% inclination.

If not stated differently in the offer, platform widths of 230cm or 460cm will be delivered. Bigger/smaller platform widths can be delivered at additional price.

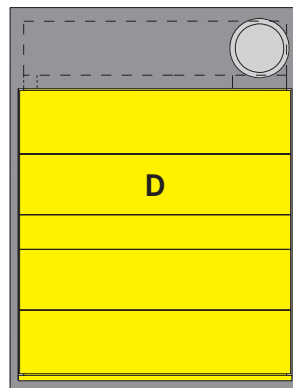
Top view closed pit

Single unit

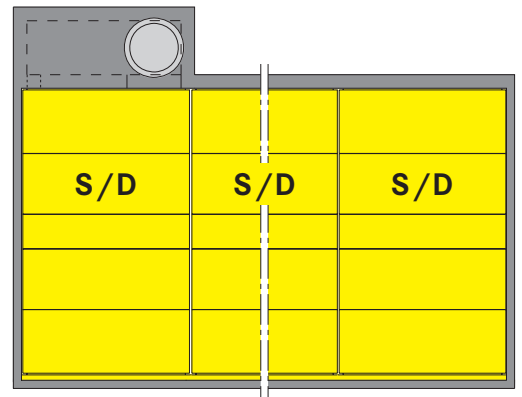


Entrance side

Double unit

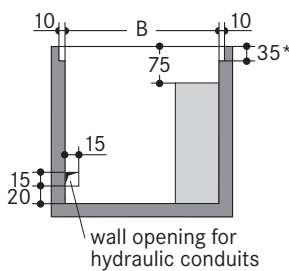


Row arrangement
(Single- and Doubleunits are combinable)

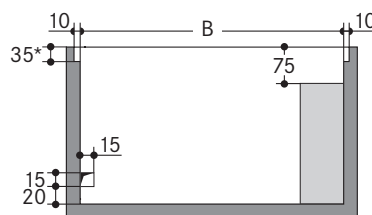


Pit dimensions

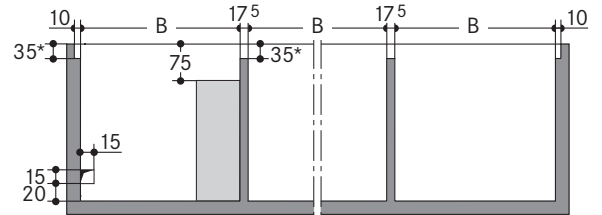
Single unit
(front view)



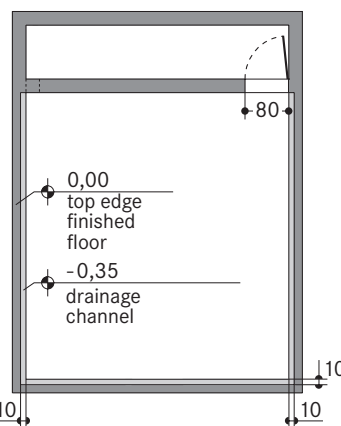
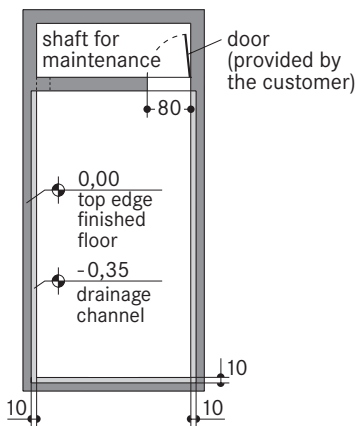
Double unit



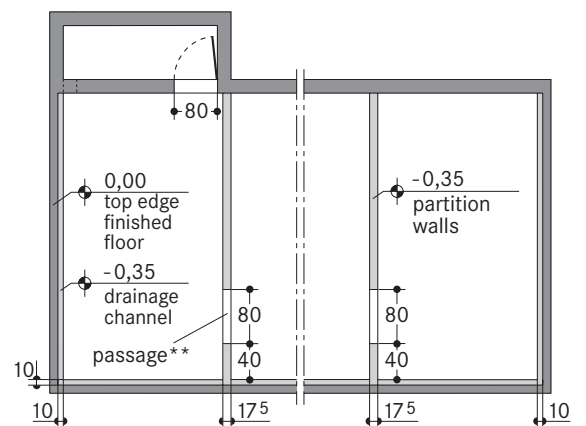
Row arrangement



(top view)



* Measure 35 cm upon upper edge platform pavement



** The passageway to the neighbour units must have the identical height like the passageway of the maintenance shaft in the pit.

Space required B	gives clear platform width parking levels upper platform	
275	230	290
285	240	300
295	250	310
305	260	320
315	270	330

Space required B	gives clear platform width parking levels upper platform	
505	460	520
525	480	540
545	500	560

A rectangular angle is required from the sidewalls to the front side. Max. tolerances are 1 cm!

Important notes

Attention:

If sides or the back are freely accessible, a safeguard is necessary (safety fences, marking, electrical hauling cable counter, or similar). This is planned dependent on project.

Belf maximum platform widths are not installed, difficulties might arise when entering or exiting the cars on the parking units. This depends on the car type, the access and the individual driving behaviour.

Cars wider than 190 cm should be parked on platforms 270/500 cm width only for entering/exiting at drivers position.

Pit edge

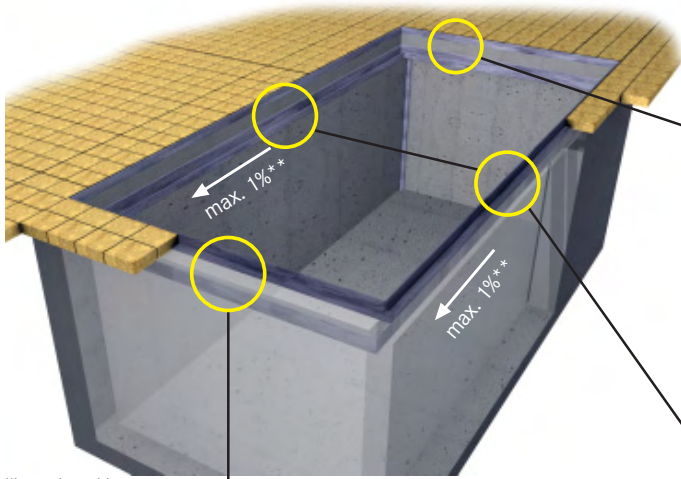
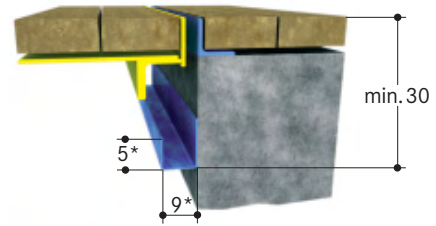


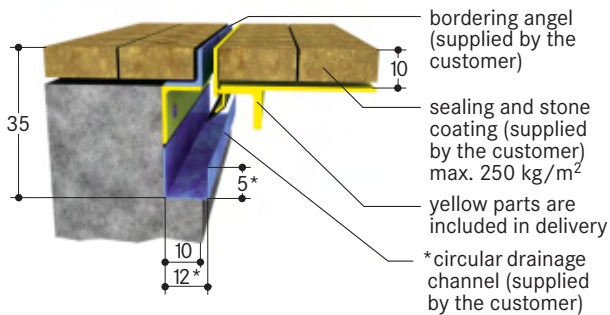
Illustration with stone coating (without Parklift)

** max. 1% slope of drainage channel to entrance side

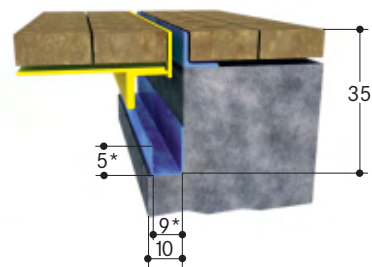
Pit edge rear (with stone coating)



Pit edge entrance side (with stone coating)



Pit edge lateral (with stone coating)



Installation

For the installation a crane has to be provided by the customer.

For installations in underground car parks or roofed areas a mobile crane must be provided by the client, min. hook height 5 m.

Parklift 461:

hook clearance min. 300 cm over height of entrance
crane load approx. 700 kg

Parklift 462 and Parklift 463:

hook clearance min. 600 cm over height of entrance
crane load approx. 1400 kg

Statics and construction requirements

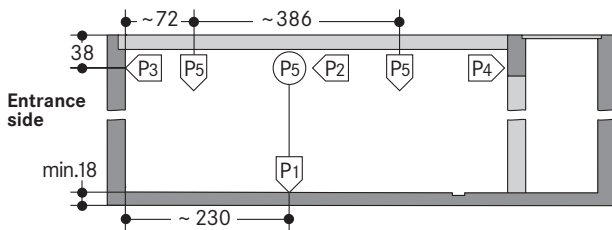
Bearing loads are transmitted to the pit floor by base plates, fixed by heavy duty anchor bolts to a depth of approximately 10–12 cm. When fixing to waterproof concrete floors chemical anchors are employed (to be advised by Wöhr). Base plate thickness and rear wall thickness minimum 18 cm (recommended concrete quality C20/25). The walls of the pit must be formed of concrete and must be perfectly

flat and vertical without any protrusions. Tolerance in the evenness and angularity must be taken additionally into consideration.

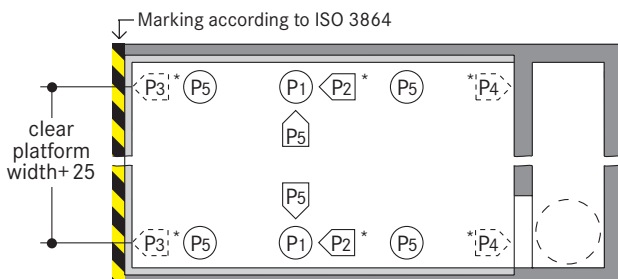
The specified lengths to the support points are mean values.

Please contact us for exact positions for any variations on the standard units.

Section



Top view



* The force P2 is only given when the pillars are fitted to the side walls. The forces P3 and P4 come only into effect when the pillars can not be fitted to the side walls.

** All static loadings include the weight of the car

Statics

Parklift 461

Single unit	Double unit
P1 = + 86 kN**	P1 = + 142 kN (upper platform with stone coating)
P2 = ± 13 kN	P2 = ± 16 kN
P3 = + 13 kN	P3 = + 16 kN
P4 = + 13 kN	P4 = + 16 kN
P5 = + 11 kN	P5 = + 11 kN

Parklift 462

Single unit	Double unit
P1 = + 110 kN**	P1 = + 178 kN (upper platform with stone coating)
P2 = ± 9 kN	P2 = ± 12 kN
P3 = + 9 kN	P3 = + 12 kN
P4 = + 9 kN	P4 = + 12 kN
P5 = + 12 kN	P5 = + 12 kN

Parklift 463

Single unit	Double unit
P1 = + 113 kN**	P1 = + 215 kN (upper platform with stone coating)
P2 = ± 8 kN	P2 = ± 11 kN
P3 = + 8 kN	P3 = + 11 kN
P4 = + 8 kN	P4 = + 11 kN
P5 = + 13 kN	P5 = + 13 kN

Electrical data

Item	Performance	Quantity	Designation	Position	Frequency
1	by customer	1 unit	electric meter	in the feed cable	
2	bauseits	1 Stück	fuse or automatic circuit breaker acc. to DIN VDE 0100 p. 430 - 3 x 25 A slow blow (5.5 kW power pack) - 3 x 32 A slow blow (2 x 5.5 kW power pack)	in the feed cable	1 x per power pack
3	by customer	as locally required	acc. to local power supply regulations 3 Ph + N + PE*	feed cable to main switch	1 per power pack
4	by customer	1 unit	separate feed cable (230 V) with lighting and power outlet	from feed cable into the maintenance shaft	1 x per Parklift
5	by customer	1 unit	marked main switch, lockable to prevent unauthorized switching on	outside the pit, max. 20 m away from operating device	1 x per power pack
6	by customer	as locally required	PVC control cable with marked strands and protective conductor 5 x 2,5 ² / 5 x 4 ²	from main switch to hydraulic power pack	1 x per power pack
7	by customer	each 10 m	equipotential bonding safety lead-out connection	corner pit floor/ rear wall	
8	by customer	1 unit	equipotential bonding safety lead-out connection compliant to the DIN EN 60204 standard	from the lead-out connection to the system	1 per Parklift
9.1	by customer	as locally required	empty pipe DN40 with taut wire	base pit/operating device	1 x per Parklift
9.2	by customer	as locally required	empty pipe DN40 with taut wire	for feed cable to power pack	1 x per Parklift
10	by customer	as locally required	switch post		1 x per Parklift

Items 11–17 are included in Wöhr's scope of delivery unless otherwise specified in the offer/order.

* DIN VDE 0100 part 410 + 430 (not under permanent load)
3 PH + N + PE (three-phase current)

The electrical components supplied by the manufacturer must be connected in accordance with the appropriate wiring diagram and local regulations. German VDE electrical requirements must be adhered to, in order to validate the TÜV tested circuit.

The electrical supply to the power pack(s) must be provided prior to or during installation

enable our fitters to complete their work satisfactorily and to check the correct functioning of the units.

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!

Noise protection

Outdoor installation:

The basis is the German DIN 4109 »Noise insulation in buildings«. According to DIN 4109 equipment, machinery and plant used in joint technical facilities in buildings must be provided with adequate protection against air-borne and solid-borne sound.

Indoor installation:

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 figure 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. $m^2 = 300$ kg/m²
- solid ceiling above the parking systems with min. $m^2 = 400$ kg/m²

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).

Operating device

The position of the operating device depends on the project (switch post, house wall). From

bottom of the shaft to the operating device an empty pipe DN40 with taut wire is necessary.

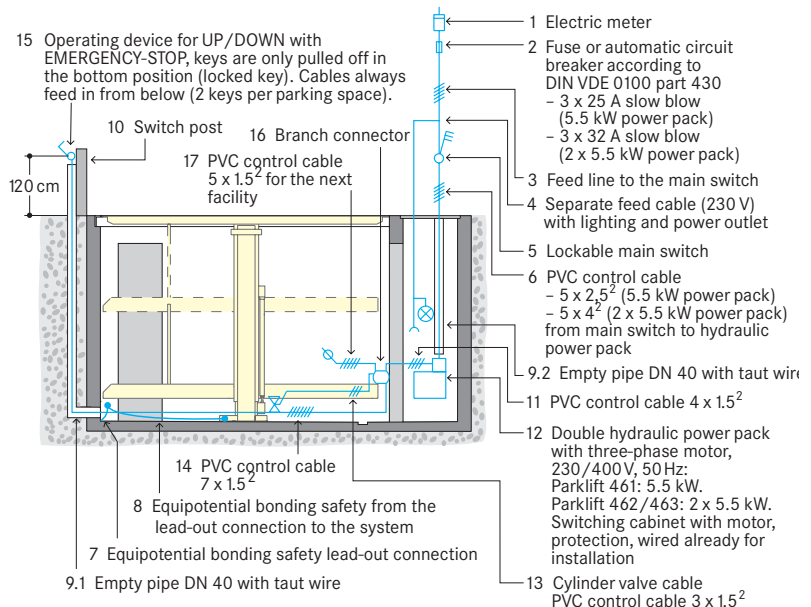
Conformity test

All our systems are checked according to EC machinery directive 98/37/EG and EN 14010.

Dimensions

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

Installation diagram



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.

Hydraulic power pack

The power pack will be placed in the shaft for maintenance.

Illumination

Illumination has to be considered acc. to local requirements by client. Illumination in the shaft for maintenance minimum 80 Lux.

Railings

During the building phase the pit has to be safeguarded by the customer.

Drainage (to be performed by the customer)

- 1) At the pit edge drainage channel formed in the concrete with connection to the sewerage system is necessary (see page 1). 50 x 50 x 20, or a connection into the sewerage system. Lateral slope only formed within the gutter.
- 2) For locations with particularly exposed conditions we recommend an additional drainage channel around the outside of the pit.
- 3) We recommend the provision of a drainage channel at the rear of the pit which can either incorporate a pump sump
- 4) To prevent any possibility of contamination of the ground water we recommend giving the pit floor an oil resistant coating as a means of protecting the environment. If this is to be connected to the sewerage system, it is advisable to provide oil and/or petrol separators.

Ventilation

We recommend to provide a ventilation system in consultation with heating/ventilation/air conditioning engineers with the aim of obtaining continuous air exchange, reducing air humidity,

preventing condensate and reducing moisture from cars (rain, snow, ice etc.). This helps considerably to reduce or to prevent corrosion and malfunctions due to corrosion.

Maintenance

Regular maintenance by qualified 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 deaired well.

Maintenance Shaft

A separate shaft for maintenance with an entrance to the pit is necessary. On serial garages a shared maintenance shaft may be suitable but will depend on individual projects. The covering and ladder for the shaft is the clients responsibility.