



KLAUS Multiparking GmbH
Hermann-Krum-Straße 2
D-88319 Aitrach
Fon +49 (0) 75 65 508-0
Fax +49 (0) 75 65 508-88
info@multiparking.com
www.multiparking.com

PRODUCT DATA



mastervarios

Smart system

The automatic shelf system optimally utilizes the floor space of an object.

The MasterVario S system can only be used as underground system.

- Single-row shelf system with lift and horizontal conveying unit
- Transfer cabin hidden in floor
- Up to 6 parking levels
- 1 to 4 cars per parking level
- For 2 to 23 vehicles
- 3 different vehicle heights (must, however, be uniform)
- Surface load per parking space; 2000 kg (optionally 2600 kg at extra cost)
- The access box is available at ground level and traversable when lowered (max. vehicle weight: 2600 kg, max. wheel load: 650 kg)

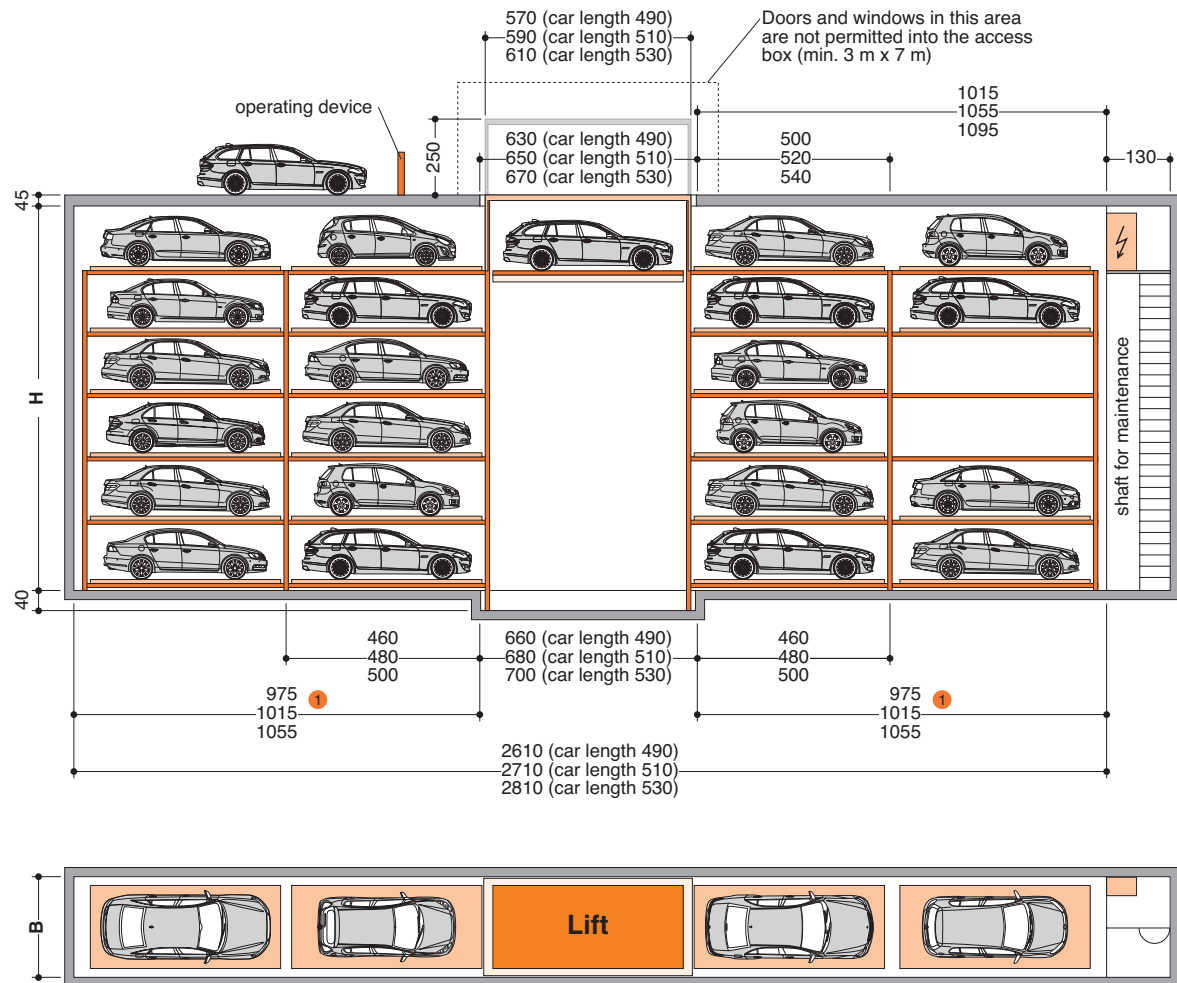


Dimensions

- Transfer cabin hidden in floor
- Up to 6 parking levels
- 1 to 4 cars per parking level
- For 2 to 23 vehicles

- 3 different vehicle heights (must, however, be uniform)
- Load per parking space: 2000 kg or 2600 kg
- The access box is available at ground level and traversable when lowered (max. vehicle weight: 2600 kg, max. wheel load: 650 kg)

Surface system with two parking levels



Height dimensions

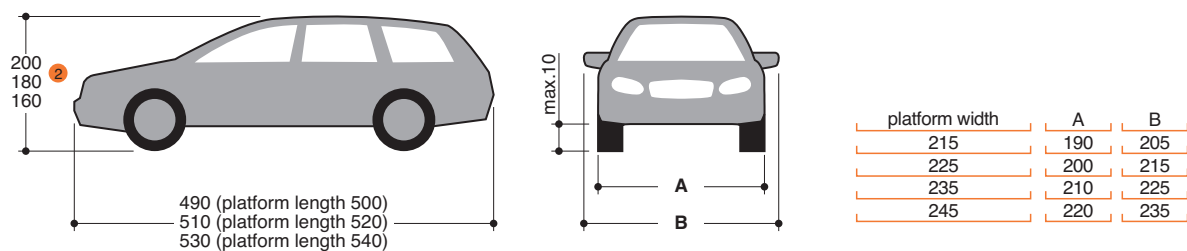
levels	all levels for vehicles up to 160 cm		all levels for vehicles up to 180 cm		all levels for vehicles up to 200 cm	
	H	car height	H	car height	H	car height
2	404,4	160	424,4	180	444,4	200
3	587,3	160	627,3	180	667,3	200
4	770,2	160	830,2	180	890,2	200
5	853,1	160	1033,1	180	1113,1	200
6	1136,0	160	1236,0	180	1336,0	200

Width dimensions

platform width	width B
215	260
225	270
235	280
245	290

① In case of two-row arrangement, one empty space is required for moving purposes.

Car dimensions

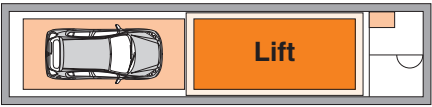
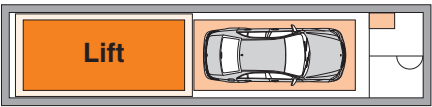


② Overall height (vehicle with roof racks, roof rails, aerals, etc. are not permitted to be higher than the specified height).

Arrange options

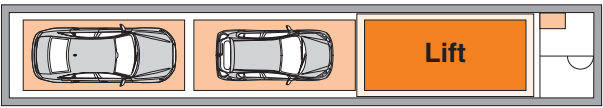
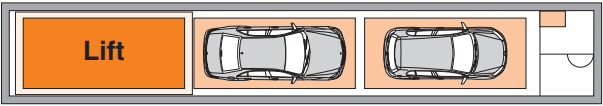
1 row

levels	parking spaces
2	2
3	3
4	4
5	5
6	6



2 rows

levels	parking spaces
2	3
3	5
4	7
5	9
6	11



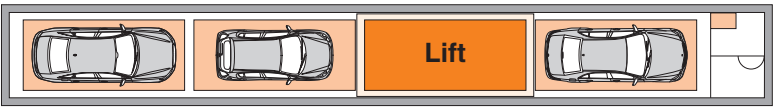
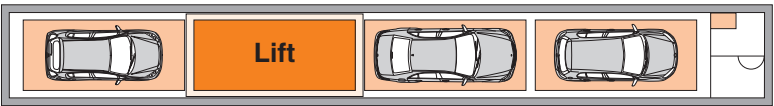
2 rows (one each in front and behind the lift)

levels	parking spaces
1	2
2	4
3	6
4	8
5	10
6	12



3 rows

levels	parking spaces
2	5
3	8
4	11
5	14
6	17



4 rows

levels	parking spaces
1	3
2	7
3	11
4	15
5	19
6	23



Technical Notes

Control system

The control system is based on a PLC industry system.

Any parking processes are initiated by an RFID chip at the RFID reader.

This RFID reader is located next to the access box.

The system can optionally be equipped with a modem for remote monitoring. For this a DSL line with a separate IP address must be installed.

Operating device

The operating device is equipped with a text display for the user guide and with a multifunctional button. Design as free-standing column, or for integration into a wall housing.

The operating device can be arranged left and right of the entrance (optionally also on both sides)

From the control platform the access edge of the system must be visible along the entire length (distance of operating panel from access edge: max. 5 m, min. 1 m).

Operating the system

The access box is lifted and lowered with a control system with automatic return.

The system can optionally be equipped with vehicle contour monitoring.

Once the access box is closed, the system is controlled automatically.

The parking spaces are selected via RFID chips (no remote control possible).

If the end position of the access box is not locked, a mechanic entry and exit lock prevents any accessing.

Statics and construction

The steel construction is a self-supporting construction holding pallets and conveying units.

The steel construction is fixed to the ground using glue dowels, the support to the wall mainly with rubber buffers.

The depth of the borehole in the floor plate or wall is about 15 cm. Floor plate and walls are made of concrete (quality: min. C20/25)!

Shaft cover

The shaft cover is a welded frame construction (acc. to EN ISO 13920, tolerance class C). Floor surfaces can be selected by the customer (e.g. topsoil/lawn, sand bedding/pebbles, sand bedding/pavement slabs, etc.) Consult KLAUS Multiparking regarding maximum surface loads and sealing, if necessary.

The access box is available at ground level and traversable when lowered (max. vehicle weight: 2600 kg, max. wheel load: 650 kg).

The area above the drive units is covered with galvanized stud plates.

Make sure not doors, windows and unsecured openings protrude into the area of the access box at a height of 3 meters and a length of 7 meters. If doors or windows are available in this area, they have to be locked electro-mechanically by the customer. This interlock has to be integrated in the control system for the system (windows or doors are only permitted to be unlocked if the access box is lowered. If windows or doors are not locked, the system cannot be controlled).

Maintenance shaft

A maintenance shaft with staircase or ladders to access all levels has to be provided by the customer. The electrical cabinet is integrated in the maintenance shaft.

Lighting

Access box: min 500 lux

Storage area: min 50 lux

The lighting in the access box must be integrated in the control system.

Drainage

The parking pallets are designed such that any water (dripping water, melting snow) is collected..

Drainage of the pit (by the customer)

In the pit a drainage channel with connection to the public sewer network or the pump sump is to be provided. If the pump sump cannot be emptied manually, a pump has to be provided by the customer.

To prevent any danger to the ground water, we recommend painting the pit floor in order to protect the environment. When connecting the system to the public sewer network, we recommend the installation of oil and petrol separators.

Fire protection

Any necessary fire protection measures are to be coordinated by the architect with the responsible building authorities or any other relevant authority.

To integrate the corresponding measures, contact KLAUS Multiparking.

Noise protection

Our systems fulfil the requirements according to DIN 4109 on condition that the building provides a sound reduction index R'w of at least 57 dB(A).

Ventilation / Ambient conditions

The permissible temperature range for electrical control elements and the mechanical parts is between +5°C and +40°C. Any deviations from these values are to be coordinated with KLAUS Multiparking.

The ventilation system is designed in a way that it fulfils the requirements on safety at work. In addition, the constant exchange of air shall reduce the humidity and prevent any consequential condensation (corrosion).

Grounding / Equipotential bonding

Within the area of the steel structure earth electrodes are to be provided every 10–15 m by the customer. They are to be designed according to DIN EN 60204. The locations of the earth electrodes are to be coordinated with KLAUS Multiparking.

Availability

The availability of the system depends on the VDI directive 4466, January 2001 (art. 6.4). According to this the system will reach at least 98% (calculation acc. to VDI 3581) after an operating time of 6 months.

Declaration of conformity / Manufacturer's declaration

The systems offered by KLAUS Multiparking are designed, in general, in accordance with the EC Machinery Directive 2006/42/EC and, in particular, with the DIN EN 14010.

Dimensions

The dimensions specified by us are minimum dimensions. In order to meet the minimum finished dimensions the tolerances according to VOB, part C (DIN 18330 and 18331) as well as the DIN 18202 must also be observed.

We reserve the right to change this specification without further notice

KLAUS Multiparking reserves the right in the course of technical progress to use newer or other technologies, systems, processes, procedures or standards in the fulfillment of their obligations other than those originally offered provided the customer derives no disadvantage from their so doing.