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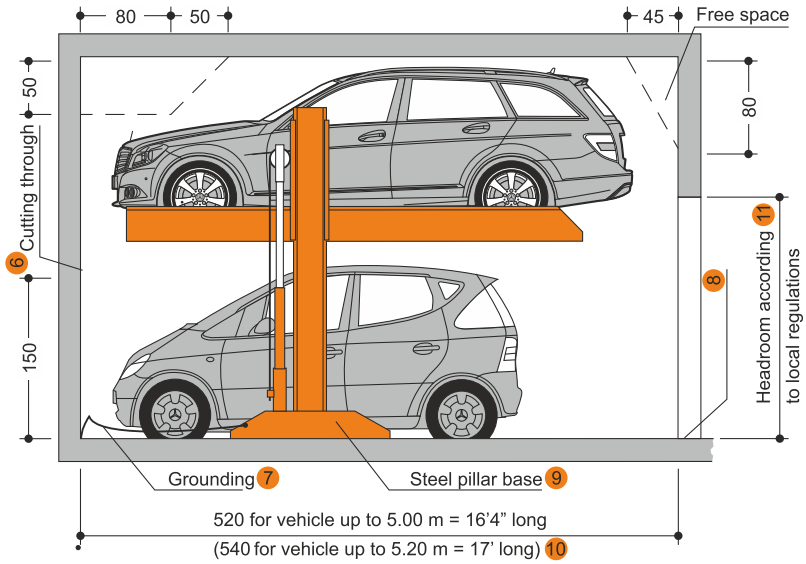
KLAUS Multiparking Systems Pvt. Ltd.
NKB House, Survey No. 98, Plot No. 14,
Bhusari Colony, Kothrud, Pune 411 038 INDIA
Phone **+91-20-6681 5800**
E-mail **info@klausmultiparking.in**
Website **www.klausindia.com**

PRODUCT DATA

Multivario G61M-EV
2000 kg[1] / 2500 kg[2]

Loadable up to 2500 kg. A system for all height. Subsequently adjustable.

Garage without door (basement garage)



Before lowering the platform, the vehicle parked on the lower parking space must be driven off.

Dimensions

All space requirements are minimum finished dimensions.

Tolerances for space requirements $^{+3}_{0}$. [3]
Dimensions in cm.

EB (single platform) = 2 vehicles

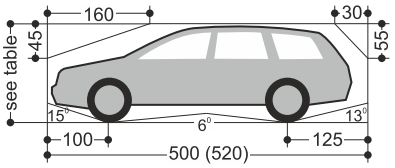
Suitable for

Standard passenger cars

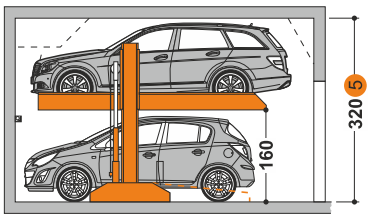
Station wagon, SUV, van according to clearance and maximal surface load.

	Standard	Special [2]
Width	190 cm [4]	190 cm
Weight	max. 2000 kg	max. 2500 kg
Wheel load	max. 500 kg	max. 625 kg

Clearance profile

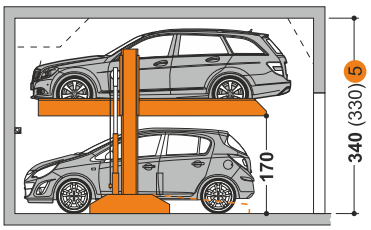


G61M-EV-160



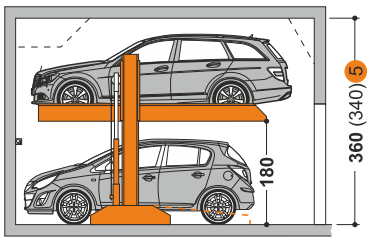
Height	Car height upper	Car height lower
320	**150**	**150**

G61M-EV-170



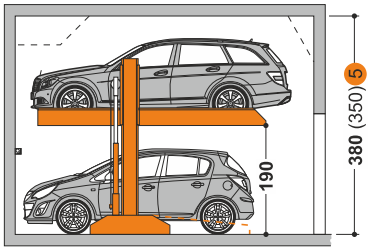
Height	Car height upper	Car height lower
340	**160**	**160**
(330)	150	160

G61M-EV-180



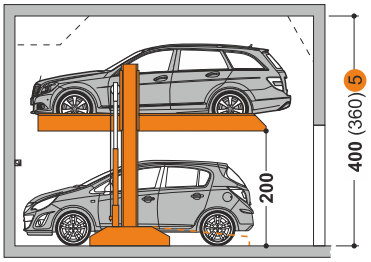
Height	Car height upper	Car height lower
360	**170**	**170**
(340)	150	170

G61M-EV-190



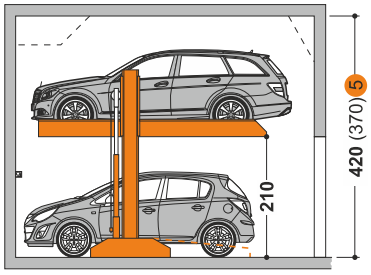
Height	Car height upper	Car height lower
380	**180**	**180**
(350)	150	180

G61M-EV-200



Height	Car height upper	Car height lower
400	**190**	**190**
(360)	150	190

G61M-EV-210



Height	Car height upper	Car height lower
420	**200**	**200**
(370)	150	200

1. Standard type
2. Spare no.
3. To follow the minimum finished dimensions, make sure to consider the tolerances according to building standards.
4. Car width for platform width 230 cm. If wider platforms are used, it is also possible to park wider cars.
5. If a higher ceiling height is available, higher cars can be parked.
6. For dividing walls: cutting through 10 x 10 cm.
7. Potential equalization from foundation grounding connection to system (provided by the customer).
8. 10 cm wide yellow-black markings must be applied by the customer to the edge of the platform in the access area to mark the danger zone in front of the supporting surface of the upper platform edge (see "load plan" Page 4)
9. Variable steel pillar bases in two sizes (see "load plan" Page 4)
10. For convenient use of your parking spaces and due to the fact that the cars keep becoming longer we recommend a length of 540 cm.
11. Must be at least as high as the greatest car height +5 cm.

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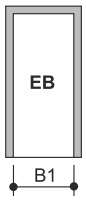
Width for basement garage

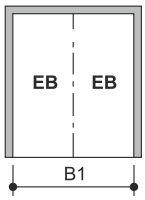
Dividing walls

Single platform (EB)



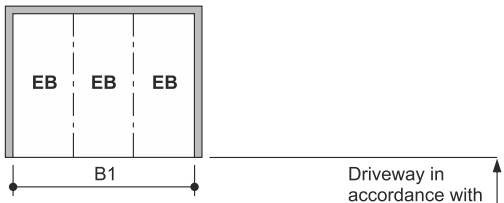
Usable platform width	B_1
200	230
210	240
220	250
230*	**260**
240	270
250	280

Double arrangement (2 x EB)



Usable platform width	B_1
200	460
210	480
220	500
230*	**520**
240	540
250	560

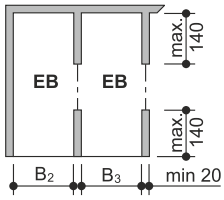
Triple arrangement (3 x EB)



Usable platform width	B_1
200	690
210	720
220	750
230*	**780**
240	810
250	840

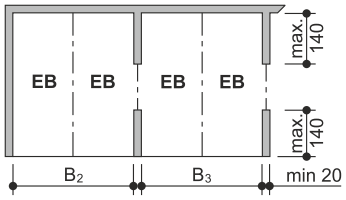
Columns in system zone

Single platform (EB)



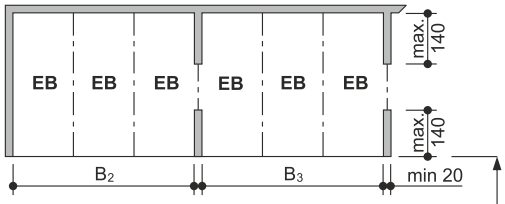
Usable platform width	B_2	B_3
200	225	220
210	235	230
220	245	240
230*	**255**	**250**
240	265	260
250	275	270

Double arrangement (2 x EB)



Usable platform width	B_2	B_3
200	455	450
210	475	470
220	495	490
230*	**515**	**510**
240	535	530
250	555	550

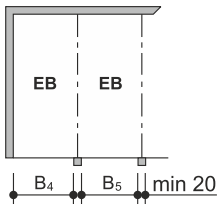
Triple arrangement (3 x EB)



Usable platform width	B_2	B_3
200	685	680
210	715	710
220	745	740
230*	**775**	**770**
240	805	800
250	835	830

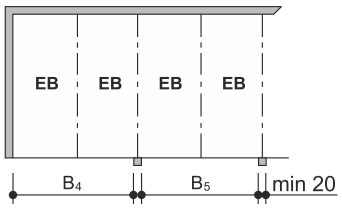
Columns outside system zone

Single platform (EB)



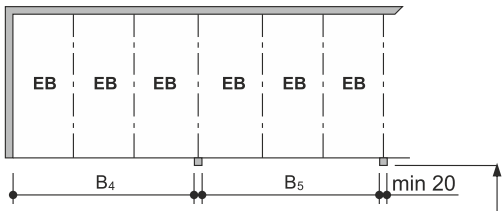
Usable platform width	B_4	B_5
200	220	210
210	230	220
220	240	230
230*	**250**	**240**
240	260	250
250	270	260

Double arrangement (2 x EB)



Usable platform width	B_4	B_5
200	450	440
210	470	460
220	490	480
230*	**510**	**500**
240	530	520
250	550	540

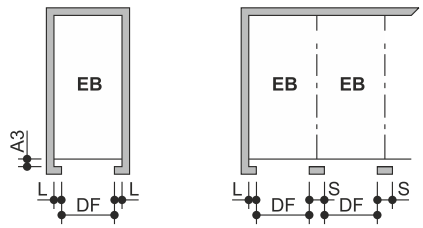
Triple arrangement (3 x EB)



Usable platform width	B_4	B_5
200	680	670
210	710	700
220	740	730
230*	**770**	**760**
240	800	790
250	830	820

Widths for garage with door in front of car parking system

Single platform (EB)

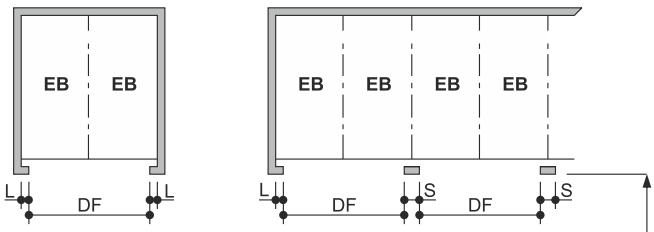


A_3= Seat-engaging surface (dimensions require coordination with door supplier.)

All round door dimensions require coordination between door supplier and local agency of KLAUS Multiparking

Usable platform width	Door entrance width DF	L	S
200	207^5	11^2	22^5
210	217^5	11^2	22^5
220	227^5	11^2	22^5
230*	**237^5**	**11^2**	**22^5**
240	250	11^2	22^5
250	250	15	30

Double arrangement (DB)



Usable platform width	Door entrance width DF	L	S
200	415	22^5	45
210	435	22^5	45
220	483^5	22^5	45
230*	**475**	**22^5**	**45**
240	500	20	40
250	520	20	40

*= standard width (parking space width 2.30 m)

Please note:

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.

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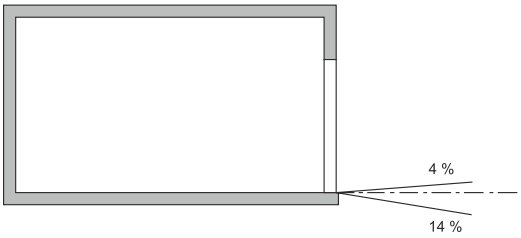
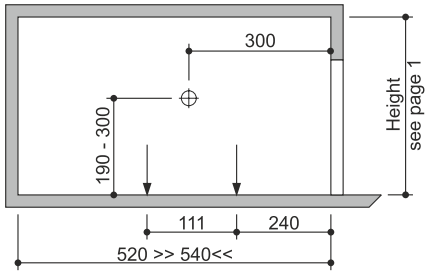
Approach



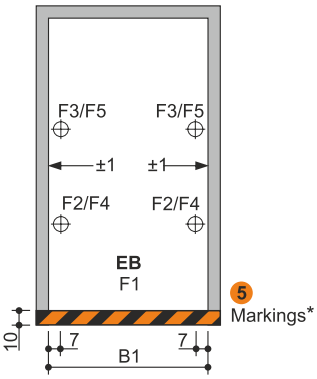
The illustrated maximum approach angles must not be exceeded. Incorrect approach angles will cause serious maneuvering and positioning problems on the parking system for which the local agency of KLAUS Multiparking accepts no responsibility.

Load plan

Forces in kN (static loads)



Platform load	F1	F2	F3	F4	F5	F6
2000 kg	30	1.1	7.4	0.5	7.7	±1
2500 kg	35	1.3	8.9	0.6	9.3	±1



Units are doweled to the floor.

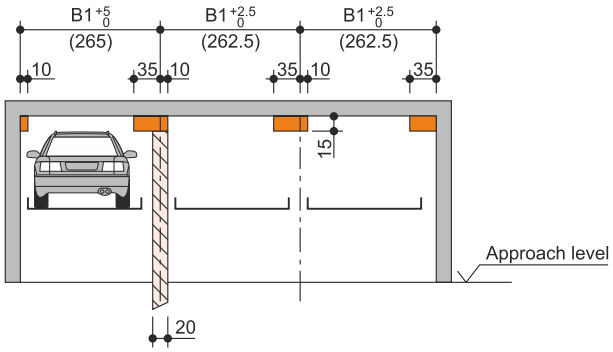
Drilling depth: approx. 9 cm to 15 cm. Floor and walls are to be made of concrete (quality minimum C20/25).

* = Colors used in this illustration are representative

Special foundations are required with asphalt floor or paving blocks.

Installation data

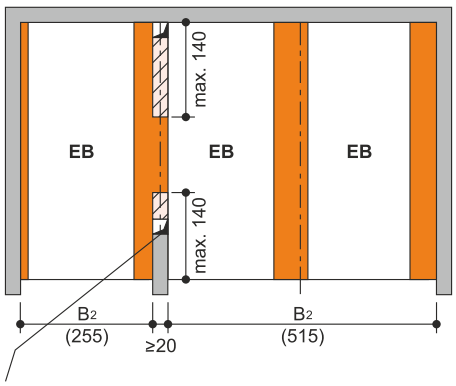
Free space for longitudinal and vertical ducts (e.g. ventilation)



B_1, B_2 = (See table on page 2)

Free space for vertical pipelines, ventilation branch canals

Free space for horizontal ducting



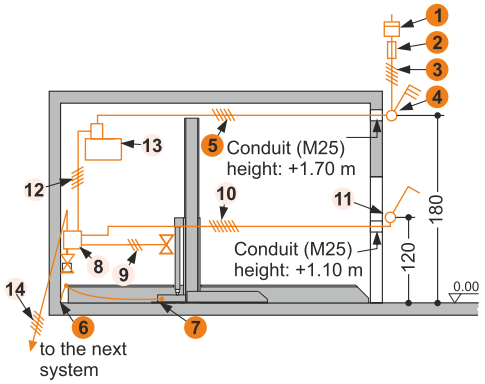
Example for ventilation branch canal and/or vertical pipelines.

Free space only applicable if vehicle is parked forwards = FRONT FIRST and driver's door on the right side

( ) = Dimensions in brackets illustrate an example for usable platform width 230 cm.

Electrical installation

Installation diagram



Electrical data (to be performed by the customer)

No.	Qunatity	Description	Position	Frequency
1	1	Electrical meter	in the supply line	
2	1	N.A.		
3	1	Power supply line (5 x 2.5 mm², copper 3 PH + N + PE) with marked wire and protective conductor.	from electrical meter to main power point	1 per unit
4	1	Main power point: 4 pole RCBO (or MCB + ELCB), 16 Amp IDN (sensitivity/leakage current) 100 mA	defined at plan evalation near to hydraulic unit	1 per unit
5	1	Power supply line (5 x 2.5 mm², copper 3 PH + N + PE) with marked wire and protective conductor.	from main power point to hydraulic unit	1 per unit
6	every 10 m	Foundation earth connector	corner pit floor	
7	1	Equipotential bonding from foundation earth connector to the system		1 per system

Electrical data (included in delivery of KLAUS Multiparking)

No.	Description
8	Terminal box
9	Control line 3 x 0.75 mm² (PH + N + PE)
10	Control line 5 x 0.75 mm² with marked wire and protective conductor
11	Operating device
12	Control line 5 x 0.75 mm² with marked wire and protective conductor
13	Hydraulic unit 1.5 kW, three-phase current, 415 V / 50 Hz
14	Control line 5 x 0.75 mm² with marked wire and protective conductor

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Technical data

Range of application

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

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.

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

- Lighting, ventilation, fire extinguishing and fire alarm systems.
- Signages for parking guidance, flooring, pedestals, site painting.

Marking

The marking that identifies the danger area at entrance of parking platform should be made on the floor, with yellow and black stripes.

Wall cutting

Any necessary wall cutting according to page 1.

Electrical supply to the main power point

3 phase, 415 V (±10%) 50 Hz (±2%) 4 wire (3 PH + N + PE) electrical supply to the main power point and the control wire line (5 x 2.5 mm^2, copper 3 PH + N + PE) with marked wire and protective conductor must be provided by customer during installation.

Railings

If there are traffic routes next to or behind the installations, railings must be installed by the customer. Railings must also be in place during construction.

Description

General description

This system provides dependent parking spaces for 2 cars one on top of the other. The lower vehicle is parked directly on the floor. The vehicle parked on the bottom must be driven out before lowering the platform.

The upper vehicle is parked on the platform when it is resting on the floor with the wheels touching the wheel stopper-cross member.

The user is responsible for proper positioning of the vehicle on platform /floor.

Operation via operating device with hold-to-run-device using master keys.

The operating elements are usually mounted either in front of the column or on the outside of the door frame.

Operating instructions are attached to each operator's box stand.

For garages with doors at the front of the parking system, the special dimensional requirements have to be taken into account.

Multiparking systems consist of

- 2 steel pillars with base plates (mounted on the floor)
- 2 sliding platforms (mounted on to the steel pillars with sliding bearings)
- 1 platform
- 1 mechanical synchronization control system (to ensure synchronous operation of the hydraulic cylinders while lowering and lifting the platform)
- 1 hydraulic cylinder
- 1 automatic hydraulic safety valve (prevents accidental lowering of the platform)
- Connecting elements, bolts, nuts, etc.

Platforms consist of

- Platform base sections
- Wheel-stop cross member
- Access strip
- Side members
- Cross members
- Bolts, nuts, washers, distance tubes, etc.

Hydraulic system consists of

- Hydraulic cylinders
- Solenoid valves
- Hydraulic pipes
- Hydraulic pipe fittings
- High-pressure hoses

Electric system consists of

- Operating device (Emergency Stop, lock, 1 master key per parking space)
- Terminal box at wall valve
- Electromagnetic locking device

Hydraulic unit consists of

- Hydraulic power unit (low-noise, installed onto a console with a metal mounting)
- Hydraulic oil reservoir
- Oil filling
- Internal geared wheel pump
- 3-phase-AC-motor (1.5 kW / 415 V, 50 Hz)
- Contactor (with thermal over current relay and control fuse)
- Pressure gauge
- Pressure relief valve
- Hydraulic hoses

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.