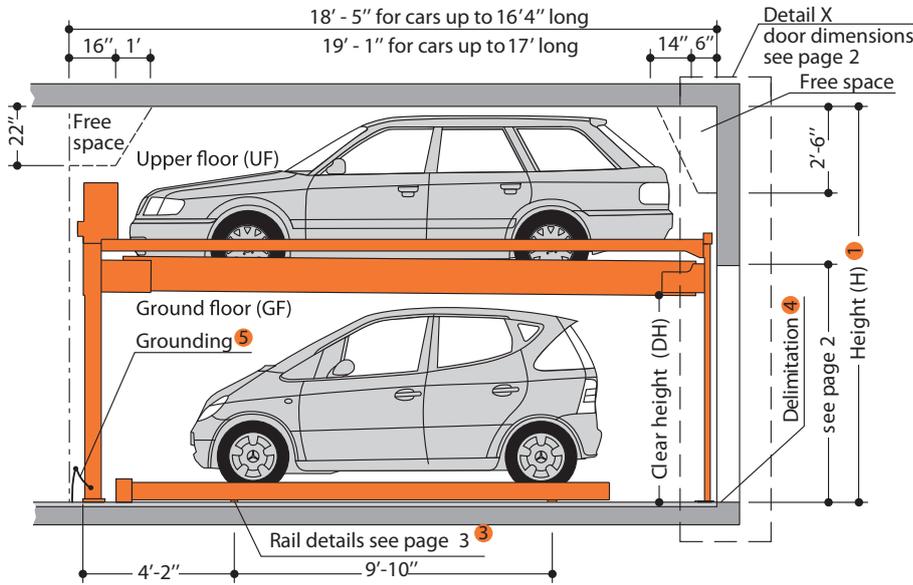
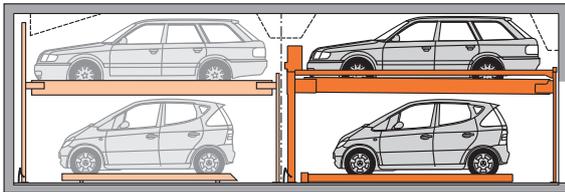


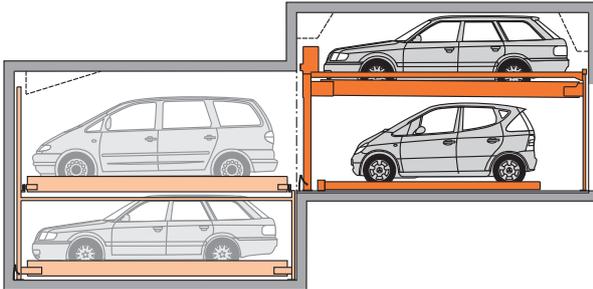
Standard Type 4000 (formally called P200)



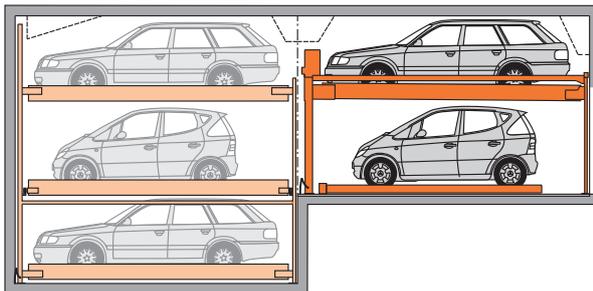
Combination TrendVario 4200 with TrendVario 4000



Combination TrendVario 4100 with TrendVario 4000



Combination TrendVario 4300 with TrendVario 4000



Notes

- 1 If height H is larger, vehicles with the maximum height specified for the GF can be parked on the UF, otherwise there will be free space available on the ceiling.
- 2 In order to meet the minimum finished dimensions the tolerances specified must be met, they may be up to 1" greater than specified.
- 3 Tolerances for the evenness of the floor must be strictly complied with.
- 4 On the version without door, a 4" wide yellow-black markings compliant to ISO 3864 must be applied by the customer to the edge of the platform in the access area to mark the danger zone in compliance with DIN EN 14 010
- 5 Potential equalization from foundation grounding connection to system (provided by the customer).
- 6 Maximum load of 5,720 lbs optional.

General notes

If sprinklers are required make sure to provide the necessary free spaces during the planning stage.

Product Data
TrendVario
4000
Combination



Loadable up to 5,720 lbs

Single parking spaces can also be upgraded to handle heavier loads at a later date!

Number of parking spaces: min. 3 to max. 29 vehicles

Dimensions: 2
All space requirements are minimum finished dimensions. Tolerances for space requirements +1" - 0"

Type	DH*	H
4000	5' - 3"	10' - 10"
4000	5' - 8"	11' - 4"
4000	5' - 11"	12' - 2"
4000	6' - 1"	12' - 6"
4000	6' - 11"	13' - 4"
4000	7' - 1"	14' - 5"

* = without car

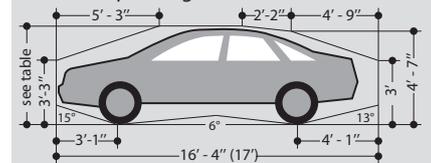
Suitable for:

Standard passenger car, station wagon/ Van. Height and length according to car height.

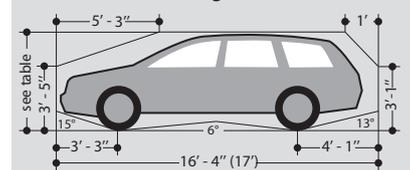
Type	DH*	car height		
		H	UF	GF
4000	5' - 3"	10' - 10"	4' - 11"	4' - 11"
4000	5' - 8"	11' - 4"	4' - 11"	5' - 5"
4000	5' - 11"	12' - 2"	5' - 7"	5' - 7"
4000	6' - 1"	12' - 6"	5' - 9"	5' - 9"
4000	6' - 11"	13' - 4"	5' - 9"	6' - 7"
4000	7' - 1"	14' - 5"	6' - 9"	6' - 9"

width	6' - 3"
weight ⁶	max. 4400/5720 lbs
wheel load	max. 1100/1430 lbs

Standard passenger car



Standard station wagon/ Van/ SUV**



Standard passenger car, station wagon / Van/ SUV are vehicles without any sports options such as spoilers, low-profile tyres etc.
** = Make sure to observe the weights and dimensions!

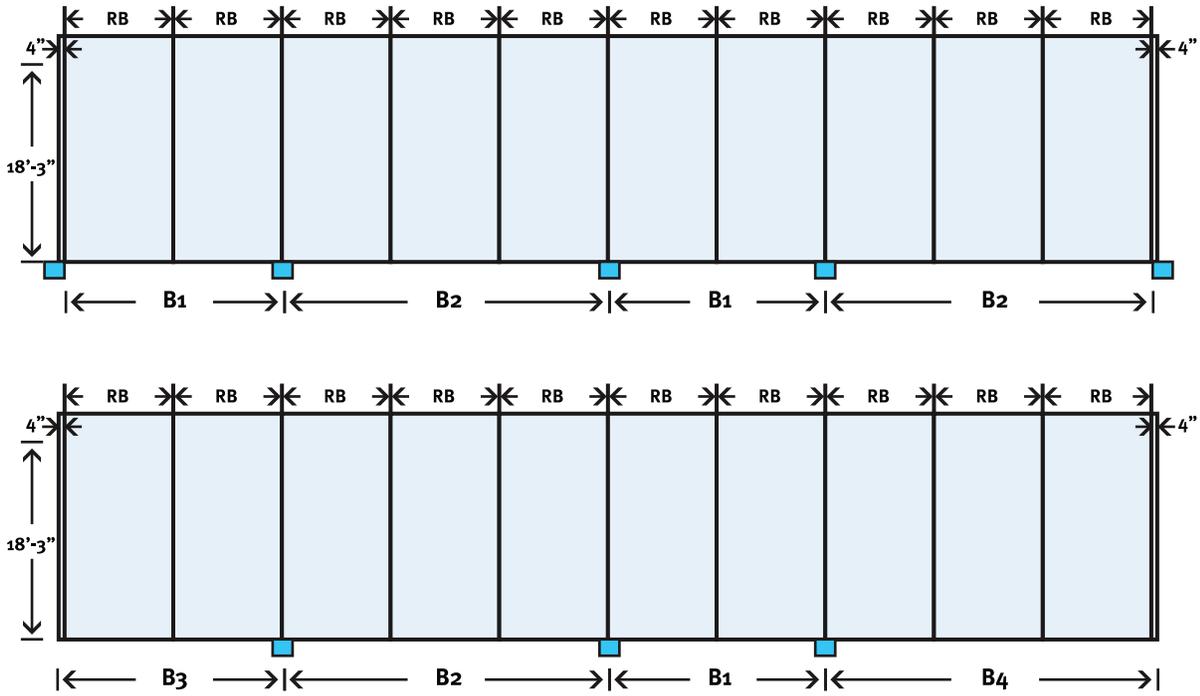


Klaus Multiparking GmbH
2170 Dwight Way
Berkeley, CA 94705
Phone 925-284-2092
Fax 925-284-3365
E-Mail sales@parklift.com
Internet www.parklift.com



ALLOWABLE COLUMN SPACING

Use for preliminary layout. Prior to finalizing design contact Klaus for a job specific layout drawing.



	Clear Platform	RB	Max Column Width	B1	B2	B3	B4
	240	8'-6-3/8"	16"	17' - 1"	25' - 7"	17' - 5"	25' - 11"
Recommended	250	8'-10-3/8"	24"	17' - 9"	26' - 7"	18' - 1"	26' - 11"

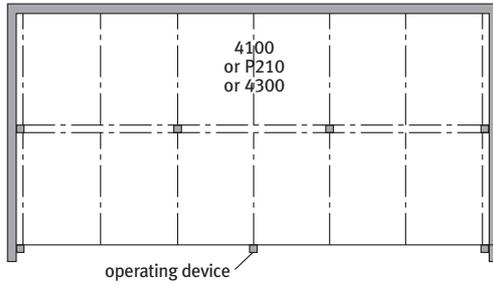
The column widths shown are the maximum width's allowed for each model. The columns may be spaced every two or three bays or a combination of every two or every three bays. On the ends of the machine the column is optional if there is a concrete wall present. Otherwise the end columns should be offset so that their edge lines up with the last platforms outside RB dimension line shown above in order to allow better access to the end platforms. Please note that the machine requires an additional 4 inches at each end beyond the RB grid dimensions.



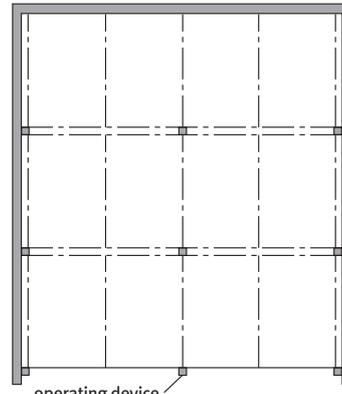
Design Guide

Cars Parked with 4200	Cars Parked With 4300	Number of Bays	Usable Platform Width			Grid Width		Overall width	
			cm	ft	inches	cm	ft	cm	ft
Medium Platforms									
6	8	2	240	7.87	94 8/16	260	8.53	540	17.72
10	13	3	240	7.87	94 8/16	260	8.53	800	26.25
14	18	4	240	7.87	94 8/16	260	8.53	1060	34.78
18	23	5	240	7.87	94 8/16	260	8.53	1320	43.31
22	28	6	240	7.87	94 8/16	260	8.53	1580	51.84
26	33	7	240	7.87	94 8/16	260	8.53	1840	60.37
30	38	8	240	7.87	94 8/16	260	8.53	2100	68.90
34	43	9	240	7.87	94 8/16	260	8.53	2360	77.43
36	48	10	240	7.87	94 8/16	260	8.53	2620	85.96
40	53	11	240	7.87	94 8/16	260	8.53	2880	94.49
44	58	12	240	7.87	94 8/16	260	8.53	3140	103.02
48	63	13	240	7.87	94 8/16	260	8.53	3400	111.55
52	68	14	240	7.87	94 8/16	260	8.53	3660	120.08
56	72	15	240	7.87	94 8/16	260	8.53	3920	128.61
Large Platforms									
6	8	2	250	8.20	98 7/16	270	8.86	560	18.37
10	13	3	250	8.20	98 7/16	270	8.86	830	27.23
14	18	4	250	8.20	98 7/16	270	8.86	1100	36.09
18	23	5	250	8.20	98 7/16	270	8.86	1370	44.95
22	28	6	250	8.20	98 7/16	270	8.86	1640	53.81
26	33	7	250	8.20	98 7/16	270	8.86	1910	62.66
30	38	8	250	8.20	98 7/16	270	8.86	2180	71.52
34	43	9	250	8.20	98 7/16	270	8.86	2450	80.38
36	48	10	250	8.20	98 7/16	270	8.86	2720	89.24
40	53	11	250	8.20	98 7/16	270	8.86	2990	98.10
44	58	12	250	8.20	98 7/16	270	8.86	3260	106.96
48	63	13	250	8.20	98 7/16	270	8.86	3530	115.81
52	68	14	250	8.20	98 7/16	270	8.86	3800	124.67
56	72	15	250	8.20	98 7/16	270	8.86	4070	133.53

Grid arrangement

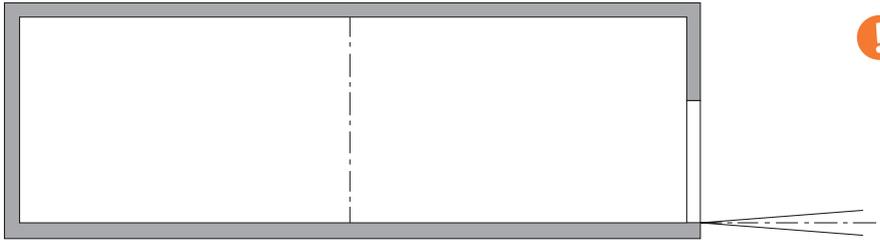


For 2 rows max. 6 grids



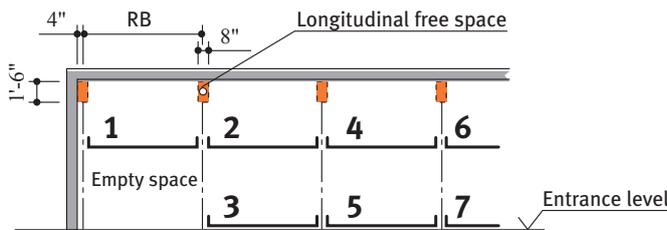
For 3 rows max. 4 grids

Approach



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

Longitudinal free space; Standard parking space numbers; Denomination



Moving direction

Upper floor

Descending to

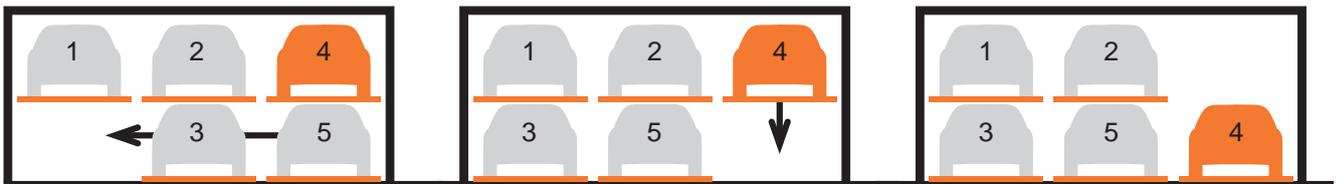
(standard: Hold-to-run-device)

Ground floor

Transverse repositioning

Function of the Parking Automat

e.g. for parking space No. 4: Check first that all doors are closed, then select No. 4 on operating panel.



For driving the vehicle off platform No. 4 the ground floor parking platforms are shifted to the left.

The empty space is now below the vehicle which shall be driven off the platform. The platform No. 4 will be lowered.

The vehicle on platform No. 4 can now be driven off the platform.

Recesses rail system

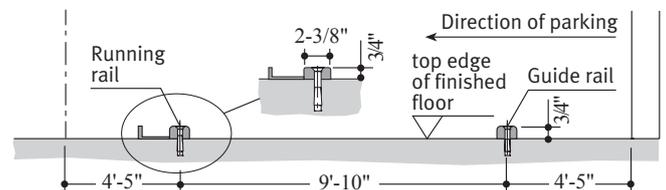
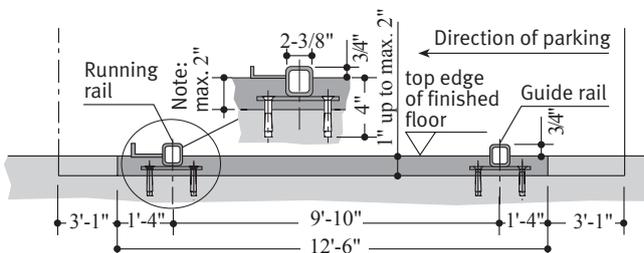
Dependent upon the structural conditions of the garage, several different options are available for installation of the rails:

When executing the carriageway, according to raw bottom floor combined with a cement screed or
When executing the carriageway with recesses for the rails:

- The set-up of the rails amounts to 1" (height of floor screed 1-1/2")
- After the rails have eventually been laid, the area under the rails must be topped up with concrete by the customer

Exact evenness of the carriageway:

- When exact evenness of the carriageway has successfully been accomplished, the rails may be dowelled onto it



GENERAL DISCRPTION

The Klaus Automat P200 provides independent access to all cars parked on the system. Each individual parking bay must be accessible from the drive aisle. The drive aisle shall comply with local regulations, but is typically 24' wide. The parking spaces are arranged on two levels. The upper level parking spaces move vertically. The lower parking spaces move horizontally (left and right) to allow upper level cars to come down to driveway level and be driven off the platforms. The lower level of the machine includes one less car than the upper to enable the lower cars to move left and right to create the vacant space. Consequently, a unit of three parking spaces (1 on the ground floor, 2 on the upper floor) is the smallest unit available for this parking system. The combination may hold up to 29 cars maximum, the P200/Trendvario 4300 can be 6 wide with a total of 28 cars, the P200/P210 can be 7 wide with a total of 26 cars and combining the P200 with at grade spaces can be 10 wide with a total of 29 cars.

TECHNICAL DATA

RANGE OF APPLICATION

This parking system is suitable for self parking by owners, renters, regular employees or anyone that can be trained on the system. The public may not park on this system without a valet.

ENVIRONMENTAL CONDITIONS

Environmental conditions for the systems: Temperature range 14° to 104° F. The system must be installed indoors. If lifting or lowering times are specified, they refer to an environmental temperature of 72° F and with system set up directly next to the hydraulic unit. At lower temperatures or with longer hydraulic lines, these times increase.

DOORS AND CONTROL SYSTEMS

The machine comes standard with manual doors and 2 keys per parking space. The key is inserted into a user control box centrally placed on the system. Electric doors are available. Infrared control transmitters are available.

SPACE NUMBERING

Standard space numbering is left to right with the empty space located in the first bay on the left. The empty space can be moved to another bay or even outside the normal machine if needed. The numbering sequence planned will be shown on the shop drawings and approved by the client.

SPRINKLER SYSTEM

The sprinklers may be mounted at the front and rear of each level if needed.

ELECTRICAL REQUIREMENTS AND HYDRAULIC UNIT

The hydraulic power unit is normally installed against the back wall on a metal bracket with rubber sound insulation. It consists of an electric motor, hydraulic motor and hydraulic oil reservoir in one unit. The hydraulic oil is biodegradable and environmentally friendly. The motor is 3 phase, 208 volt, 4.0 KW. It is possible to use single phase power if needed. The power unit has a pressure gauge and pressure relief valve.

CORROSION PROTECTION

The platforms are galvanized and the steel framing members are powder coated. The platforms should be cleaned annually to maximize their life.

SERVICE

To maintain safe and reliable operation of the machine, it must be serviced twice per year.

WARRANTY

To machine has a complete one year parts and labor warranty. Klaus provides extended warranties.

SOUND CONTROL

Numerous sound control features are standard. The hydraulic power unit is mounted on rubber pads. Steel hydraulic lines are mounted with rubber pipe supports. A rubber hose isolates the power unit from the steel hydraulic lines.

Sound tests at the front of the machine show about 67dB to 69dB (A weighting) noise levels (speech at 1 foot is 68db).

In multifamily podium construction, normally no special construction for sound is performed. For residential or wood frame construction, placement of the power unit is critical. Klaus designers will assist with power unit placement and other sound issues.

STRUCTURAL

The machine has steel framing and is anchor bolted to the concrete garage slab with wedge anchors. The framework consists of steel columns and beams on a grid pattern. The machines steel columns are connected to the building at the rear wall and to a steel tube at the front of the machine. The tube steel is typically 10" x 10" and also provides seismic bracing as well as support for the gates. This tube steel and associated concrete columns are supplied and installed by the customer. Please refer to the Automat P200 Bracing Details drawing and Merkle engineering report for details.

The platforms for the upper level cars consist of steel platforms that ride up and down the steel columns. The platforms for the cars at the driveway level run left-right on steel rails.

The upper and lower platforms are constructed with two steel side members, three steel cross members, ribbed steel platform material which runs from side member to side member and one wheel stop. The platform is solid and does not allow oil or water to drip onto the lower cars.

The lifting mechanism for the upper platforms consists of a hydraulic cylinder which raises the rear of the platform. The front of the platform is raised via a chain which runs on chain sprockets. There are safety switches that stop the machine in the event the chain goes loose for any reason. The platforms are suspended at the 4 corners and are guided along the front support columns.

The lower platforms are moved via an electric motor located on each platform. The motor drives a sprocket that runs along a chain at grade level. The platform runs on steel guide rails and can be moved manually without power by releasing the brake on the electric motor.

The machine includes several safety devices which include chain monitoring systems, and safety locks for the upper platforms. When a user is inside the machine all platforms are mechanically protected against lowering.

SCOPE OF WORK CLARIFICATIONS

1. The pit and surrounding walls, columns and beams to provide support for the machine are provided by the customer.
2. All pit drainage is provided by the customer.
3. General lighting in the garage is provided by the customer. Klaus will supply lighting within the machine. The lighting will be connected to the machine control box and will be activated when the doors are open.
4. Klaus will supply design assistance and will confirm in writing that the proposed machine will fit in the space provided.
5. Klaus will prepare shop drawings showing the location of all components.
6. The customer must close off the left and right sides of the machine with a wall or fence. The fence must be 8' high and the lower 5 feet must have no openings greater than 1/2" inch.
7. The customer must provide a 30 amp 3 phase 208 volt(or 240 volt single phase) circuit and fused disconnect for each machine and power must be available before installation begins.
8. Klaus provides all control wiring and conduit.

WE RESERVE THE RIGHT TO CHANGE THIS SPECIFICATION WITHOUT FURTHER NOTICE

The Klaus company 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 doing so.