



PARKLINE N5502

THE SEMI-AUTOMATIC PARKING SYSTEM WITHOUT PIT



SHORT DESCRIPTION

- INDEPENDENT PARKING ON 2 LEVELS, WITHOUT PIT
- UPPER LEVEL PROVIDED WITH LIFTING PLATFORMS, ENTRANCE LEVEL WITH SLIDING PLATFORMS AND ONE EMPTY SPACE
- MODULAR CONSTRUCTION: DEPENDING ON THE CONDITIONS ON SITE, IT CAN BE POSSIBLE TO ADD SEGMENTS AT WILL
- LOAD PER PARKING SPACE: STANDARD 2.000 KG
OPTIONAL UP TO 2.600 KG

APPLICATION

FOR INTERIORS AND EXTERIORS
ONE AND MULTI-FAMILY DWELLINGS
HOTELS AND OFFICE BUILDINGS
CONDOMINIUMS
COMMERCIALS
CAR DEALERS
FOR PERMANENT USERS ONLY

HEIGHT MEASUREMENTS



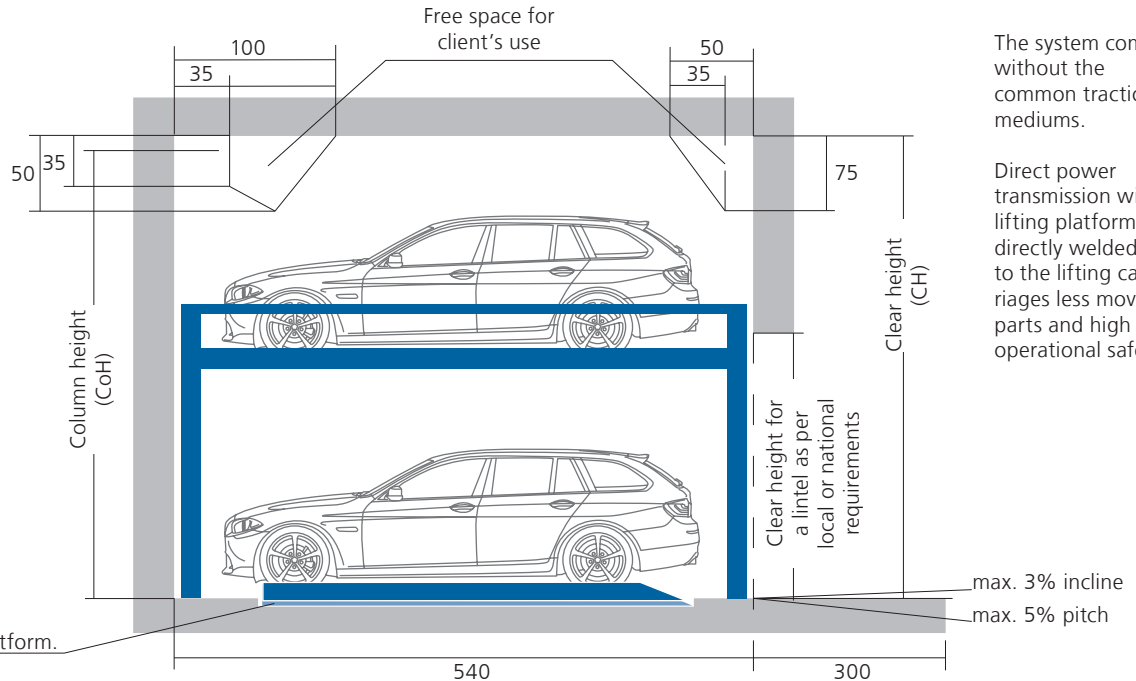
Modular construction
extensible at will

Platforms
are horizontally
accessible.

For a constant,
trained group of
users.

All measurements
are in cm.

Optional recess for a
lower positioned platform.



The system comes
without the
common traction
mediums.

Direct power
transmission with
lifting platforms
directly welded
to the lifting car-
riages less moving
parts and high
operational safety.



Standard system length 540 cm for vehicles with a max. length of 500 cm and a max. weight of 2.000 kg. Platforms for different vehicle length or higher vehicle weight could have impact on the system length! Further dimensions, inclusive for drive-through systems, available upon request.

Concrete: min. 18cm, C25, floor evenness acc. to DIN 18202 tab. 3, line 3.

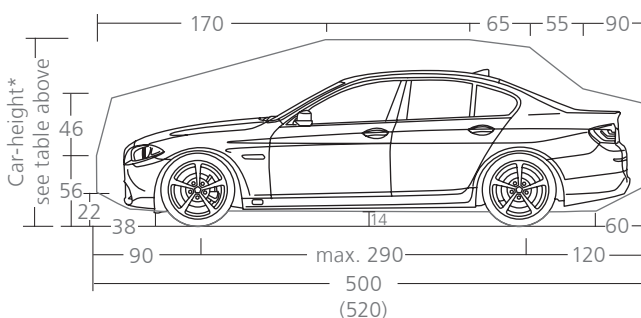
CLEAR HEIGHT (LH)*	COLUMN HEIGHT (CoH)	CAR-HEIGHT BELOW	CAR-HEIGHT ABOVE
330	225	150	150
335	230	155	150
340	235	160	150
345	240	165	150
350	245	170	150
355	250	175	150
360	255	180	150
365	260	185	150
370	265	190	150
375	270	195	150
380	275	200	150

Optionally, a lowered
platform (bottom) can be
supplied. This requires a 10
cm recess to be provided.

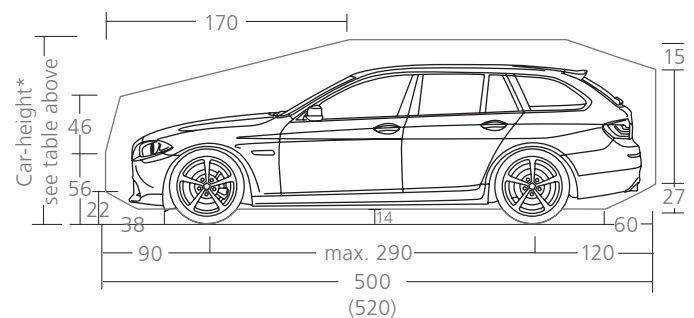
The vehicle height on the
lower level will therefore be
correspondingly higher.

* A greater clear height allows for a higher vehicle height on the upper level.

VEHICLE DATA: STANDARD CAR

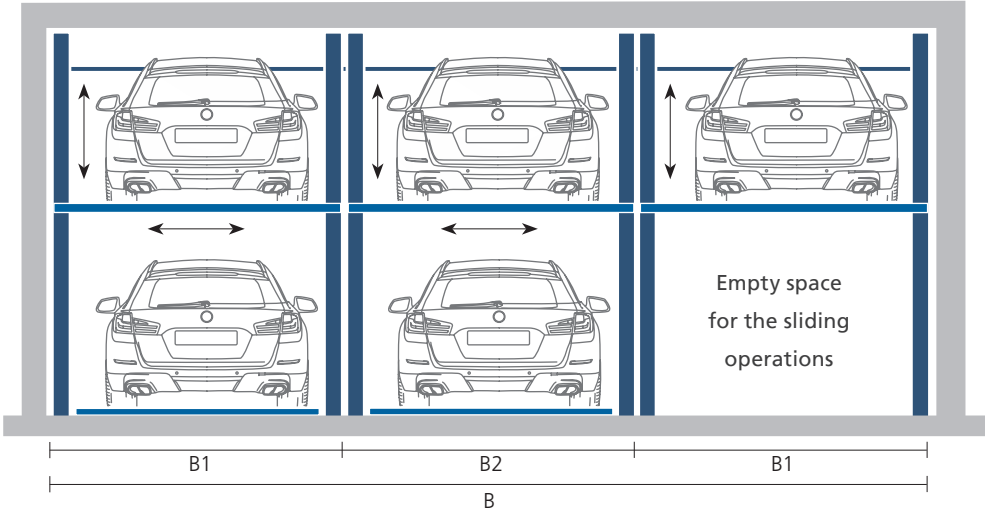


VEHICLE DATA: STANDARD ESTATE CAR



WIDTH MEASUREMENTS

EXAMPLE: 3 SEGMENTS FOR 5 PARKING SPACES



All dimensions in cm. All dimensions are minimum dimensions. Advice for planning and tendering: Generally masonry and concrete works are to be conducted according to the German norm VOB/C (DIN 18330 and DIN 18331). In the mentioned norm are pointed the tollerances that are to be fulfilled according to DIN 18202. In this norm are defined the maximum permissible dimension variations as exceedance and shortfall of the nominal size. The nominal size should be planned in order to meet the minimum dimensions necessary for the parking system.

On the entrance level are sliding platforms with one empty space on the right (on the left: possible as an option). On the upper level the system is provided with lifting/lowering platforms. The smallest sinful unit is composed by 2 segments for 3 cars. The system can be extended at will by adding segments. Anyway we suggest to combine no more than 10 segments for 19 cars with a common power unit, to keep a quick access time.

System dimensions for vehicles with a max. weight of 2.000 kg and 2.600 kg. Platforms for higher vehicle weight could have impact on system dimensions! Further dimensions, inclusive for drive-through systems, available upon request.

PLATFORM WIDTH	OUTER FRAME (B1)	INNER FRAME (B2)	TOTAL MEASUREMENTS FOR x SEGMENTS								
			2	3	4	5	6	7	8	9	10
230	260	250	520	770	1040	1270	1520	1770	2020	2270	2520
240	270	260	540	800	1060	1320	1580	1840	2100	2360	2620
250	280	270	560	830	1100	1370	1640	1910	2180	2450	2720
260	290	280	580	860	1140	1420	1700	1980	2260	2540	2820

Note: The unit will be installed on the rear wall between two columns, or alternatively outside the system. Dimensions of the unit (L x W x H): 110 x 37 x 65 cm. Please also take the dimensions of the control cabinet (to be positioned outside the system) into account during planning. Allow for a space of 100 x 100 x 100 cm, including clearance for opening the cabinet doors.

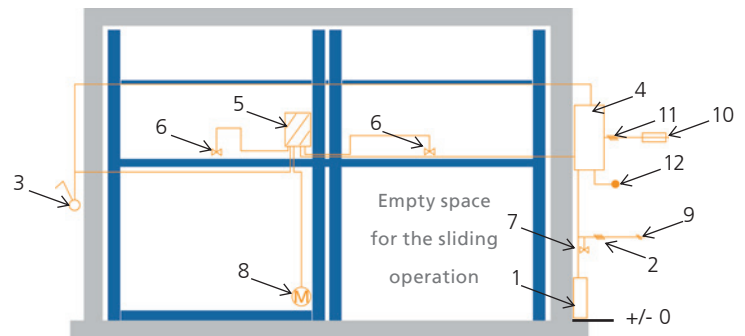
ELECTRICAL INSTALLATION AND FOUNDATION LOADS

Please observe during the planning phase!

Services covered by the NU-SPACE Company

POS.	QUANTITY	DENOMINATION
1	1x	Hydraulic power unit with three-phase motor 400V, 50Hz, 3,0kW
2	1x	Bus cable 1x2x0,2
	1x	Control line 1x12G1
3	1x	Control unit with Emergency-off
4	1x	Switch cabinet
5	1x	Segment box (for 2 segments)
6	1x	Segment valve (for 1 segment)
7	1x	Hydraulic valve (for 1 segment)
8	1x	Electrical motor for the sliding movement
9	1x	Supply line 5x 2,5mm ² (3 PH + N + PE) with marked leads + protective earth conductor

Installation diagram



Positions 1 to 9 are covered by the NU-SPACE company unless otherwise agreed in the offer or in the contract.

Services to be provided by the customer

POS.	QTY.	DENOMINATION	POSITION	FREQUENCY
10	1x	Blade fuse or circuit breaker 3x 16A, slow acc. to DIN VDE 0100 part 430	in the supply line	1x power unit
11	1x	Supply line 5x xmm ² (Cross-section depending on cable length) (3 PH + N + PE) with marked leads + protective earth conductor	to the mains switch	1x power unit
12	1x	Equipotential bonding according to DIN EN 60204 from the connector of the foundation earth electrodes to the system		1x system

FOUNDATION LOADS AND CONSTRUCTION

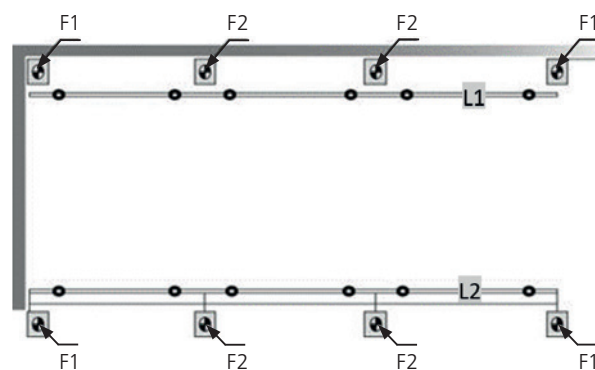
Description

The foundations must be designed to withstand the forces generated by the parking system in accordance with the adjacent schematic illustration.

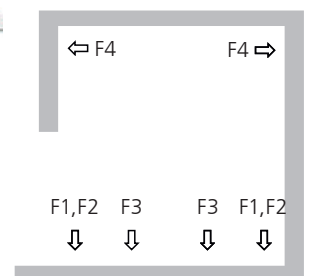
Adhesive anchors for increased foundation requirements can also be supplied as an option, if required. The drilling depth for the base plates of the parking system is 13 cm.

The foundations, walls and ceilings must be completed by the customer before installation begins and must be dimensionally accurate, clean and dry. The floor and walls must be made of reinforced concrete with a minimum concrete grade of C25/30.

Ground view



Side view



Load details

LOAD PER PARKING SPACE	VERTICAL FORCES		HORIZONTAL FORCES	
	F1 (START- & END)	F2 (CENTRAL)	F3 (RAIL)	F4 (WALL)
2000 kg	7,3 kN	14,6 kN	10 kN	3 kN
2600 kg	9 kN	18 kN	20 kN	3 kN

STANDARD FEATURES

Included in the scope of delivery

NOTE

We suggest periodical maintenance, care and cleaning. Take advantage of NU-SPACE maintenance agreements.

COMPONENT PARTS

System with electric sliding platforms as well as an empty space on the entrance level and hydraulic lifting platforms on the upper level. Hydraulic motion elements and electrical steering. Without gates, in dead man's control.

DRIVING SHEETS



Platforms with side carriers and driving sheets made of trapezoidal sheet.

CONTROL UNIT



Touch screen with key switch, emergency-stop in dead man's control with brief operating instructions fastened on the wall and cabling to the power unit.

GATES

For more information on the gates, please refer to the datasheet on page 6.

HYDRAULIC POWER UNIT

Power unit „Silencio“



with hydraulik piping and cabling to the system. (The under oil unit is not noisy thanks to the motor-pumps-combination that absorbs sound and insulates form noise).

To shorten access time, we suggest to use one power unit for max. 10 segments.

Measurements in cm (LxWxH):

Power unit: 110 x 37 x 65 cm.

Switch cabinet: 100 x 100 x 100 cm (plus place for the cabinet doors).

Positioning of the power unit:

Depending on the local conditions - preferably directly close to the back system columns or cylinders on the back.

CORROSION PROTECTION

C3-Line

For Regions with average snowfall and humidity levels (the standard in Germany).

C2-Line

Recommended only for regions with small or no snowfall and low humidity levels.

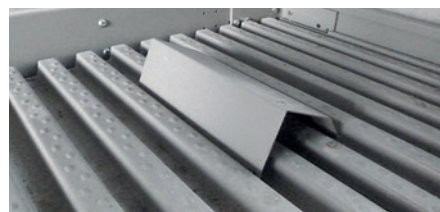
ELECTRICAL INSTALLATION

For a list of services and interfaces please see the respective table in this brochure.

DOCUMENTATION

Brief operating instructions (fastened to the control unit), documentation (test book and operating instructions).

SAFETY DEVICES



Wedge to help position the vehicle.

Hydraulic seated valve installed at the cylinders and hydraulic power unit as non-return device, in case of a loss of pressure.

Fastening of the parking system and hydraulic power unit with stud-bolts, electrical cabling fastened with impact dowels.

Integrated mechanical safety loop at the sliding platforms, which prevent the lifting platforms from lowering.

Several software-driven sensors to control the horizontal and vertical movements.

SLIDING GATES

Metal gates for your system: safety and comfort

NOTE

The sliding gates need to be fastened to the available building structure otherwise additional expenses may occur.



Standard metal mesh gates are installed on the system.

The sliding gates make the system safer and avoid trespassing the system area, especially when the system is freely accessible. With our gates your cars will be protected against theft.

For maximum comfort when driving in and out of the system you can even choose electrical gates, which can be opened and closed by remote control. This way you can comfortably sit in your car while parking your car.

The right solution for every situation. Contact us for all the optional solutions.

PLACEMENT OF THE SLIDING GATES

There are three possibilities to install the sliding gates:

Layout A:

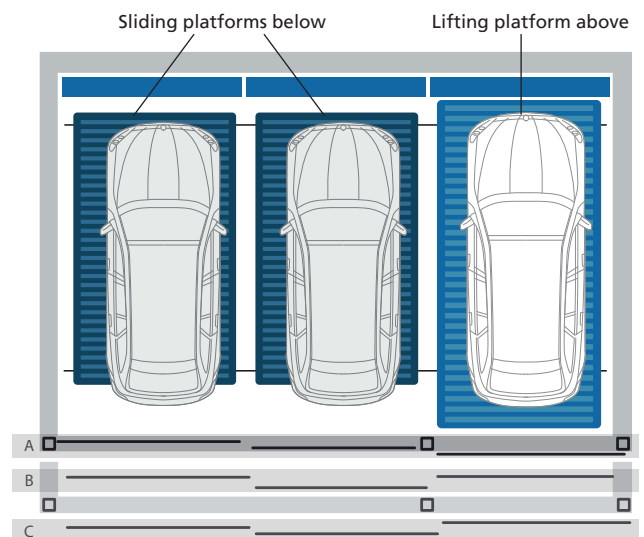
Sliding gates between the building pillars. The pillars (by client) must be positioned at least each 2 system segments).

Layout B:

Sliding gates behind the building pillars. (However, behind the gates the necessary system length of 545 cm must still be available).

Layout C:

Sliding gates in front of the building pillars.



REMOTE CONTROL FOR THE OPTIONAL ELECTRICAL SLIDING GATES



The remote control can be delivered as option in combination with the optional electrical gates. The remote control is available in three configurations, with 1, 2 or 3 buttons. Each button is for a specific function, depending on the Parking space length:

1. (above): request a parking space (radio).
2. (right): close parking system gate (infrared).
3. (below): open/close external barrier or garage gate (radio).

OPTIONS AND EXTRA EQUIPMENT

Available upon request - here are illustrated only some examples...

NOTE

We suggest periodical maintenance, care and cleaning. Take advantage of NU-SPACE maintenance agreements.

SEGMENT INTERRUPTION

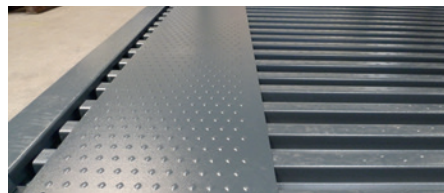
Due to the presence of building pillars, sometimes it is necessary to provide an additional distance between 2 segments. To achieve this we only need longer rails.

ALUMINIUM: PREMIUM-COVERING



Upper platforms with Aluminium-bulb plate driving sheets.

MORE WALKING COMFORT: CATWALKS



Catwalk on trapez. sheet for more walking comfort

Positioning on the left side. 1,5 mm zinc coated sheets, embossed surface. The catwalk will be screwed to the driving sheet.

UPPER AND LOWER PLATFORMS WITH HORIZONTAL ACCESS

Optionally deliverable but this requires a recess by client to allow lowering of the position of the platforms.

EXTRA SOUND INSULATION



Sound insulation hood for the power unit

Airborne noise package - hood

For the power unit to reduce the airborne noise at the installation site.

Structure/borne noise package

Measures to reduce the sound propagation from the parking system to the building.

Note

In order to comply with the norm DIN 4109/A1 Table 4 „requirements for the allowed noise level in areas in need of protection from noises coming from the technical equipment“, the perimetral parts of the garage building shall be built with a sound reduction index R_w' of at least 57 dB.

HYDRAULIC

- HVLP 32-330 oil for extreme temperature variations.
- Heated hydraulic power unit.

FASTENING OF THE COLUMNS

Fastening of the parking system with chemical anchors in case of heightened foundation requirements.

MODEM FOR TELESERVICE

With our CAN-BUS control we can conduct remote service and maintenance via telephone. Delivery incl. modem. Within a few minutes our technicians can connect to the system and analyze the cause of the failure. Most of the times it is possible to fix the problem immediately, often without the need of personnel on site.

By client: Modem DSL, DSL connection with fixed IP address and at least 1 MBit/s upstream.

PARKING SPACE MANAGEMENT

Parking space numbers

Additional parking space numeration at the operating panel, which does not begin with #1 (one).

Second control unit

Depending on the segments' number and the on site conditions, a second system's control unit can be optionally delivered.

Empty space outside of the system

Empty space placed outside the left or right segment.

SYSTEMS INSTALLED IN A ROW



With a drive-through system to allow parking in the rear system.

SERVICES TO BE PROVIDED BY THE CUSTOMER AND PLANNING INDICATIONS

During the planning phase please observe and comply with the following notes!

SERVICES TO BE PROVIDED BY THE CUSTOMER

Safety fences

Safety fences acc. to DIN EN ISO 13857 must be provided by the customer.

Parking spaces' numeration

For the allocation of the parking spaces we suggest our customers to numerate the parking spaces.

Noise abatement measures

The compliance with these measures must be carried out by the customer acc. to norm DIN 4109: „Sound insulation in building construction“.

Foundation

To be provided by the customer in accordance with the specifications in this datasheet.

Floor flatness in accordance with DIN 18202, Table 3, Line 3, in the area of the columns/rails.

Electrical installation

Prior to starting the assembly the customer must provide a lockable main control switch out of the system/pit close to the power unit. Electrical services to be provided by the customer acc. to this brochure's specification.

Installation requirements

The compliance with installation requirements acc. to quotation.

Drainage

Drainage is to be provided by the customer.

Fire protection

The customer must agree upon the fire protection requirements and the required measures with the local fire department and realise them.

Lighting

To be carried out by the customer acc. to DIN 67528: „Lighting for parking areas and indoor car parks“.

Wall openings

In case of partition walls the customer must realise a 10 cm x 10 cm wall opening for hosting hydraulic and electrical cables.

Building permit

The customer must apply for and get the required permits in order to allow the installation of the parking system.

Control unit

The customer must make sure that a plain surface of (L x W) 50 cm x 20 cm for the installation of the control unit is directly close to the power unit and out of the platforms' moving area.

PLANNING INDICATIONS

Parking space width and driving lanes

When planning parking space dimensions and aisle widths, the country-specific regulations governing the construction of garages must be observed.

In Germany, this is the Garage Ordinance (Garagenverordnung) of the respective federal state.

For greater parking convenience, we recommend planning parking spaces with a minimum width of 250 cm. In some federal states, parking spaces in edge areas are required to have a width of 270 cm.

Group of users

Our parking systems are conceived for a permanent and instructed group of users.

Maintenance and care

We suggest a timely conclusion of a maintenance agreement.

We suggest also to perform maintenance, care and cleaning at regular time intervals.

EG-Machinery directive

Our parking systems comply with the EG-Machinery directive and are CE certified according to the norm DIN EN 14010.

Ramps' inclination

Ramps leading to garages shall not have more than 15% inclination.

Modifications

The company NU-SPACE reserves the right to make dimensional, design and technical modifications.