TRANSVERSE PUSHER PALLETS N6301

THE PERFECT SOLUTION TO USE SPACE, EVEN BEHIND SUPPORTS AND CORNERS.

BRIEF DESCRIPTION

- INDEPENDENT PARKING OF CARS IN ROWS BEHIND EACH OTHER
- MAXIMUM USE OF SPACE: ROW LINKING OF THE PALLETS IN DRIVE ALLEYS AND ALSO BEHIND COLUMNS AND CORNERS FOR UP TO 100% MORE PARKING SPACES
- MODULAR CONSTRUCTION: PALLETS CAN BE PLACED AT ADJACENT ROWS DEPENDING ON LOCAL CONDITIONS
- STANDARD PARKING SPACE LOAD 2,000 KG OPTIONALLY UP TO 2,300 KG OR UP TO 2,600 KG

APPLICATION AREA

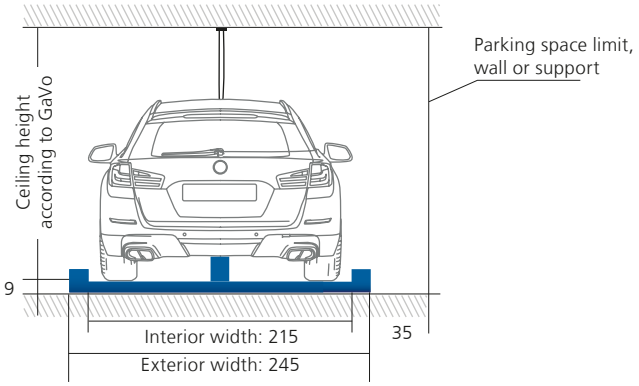
FOR INSIDE AREAS
SINGLE AND MULTI-FAMILY HOUSES
HOTELS
OFFICE BUILDINGS
FLATS
BUSINESS SPACES
RENOVATION OF OLD BUILDINGS
CONSTANT CIRCLE OF USERS

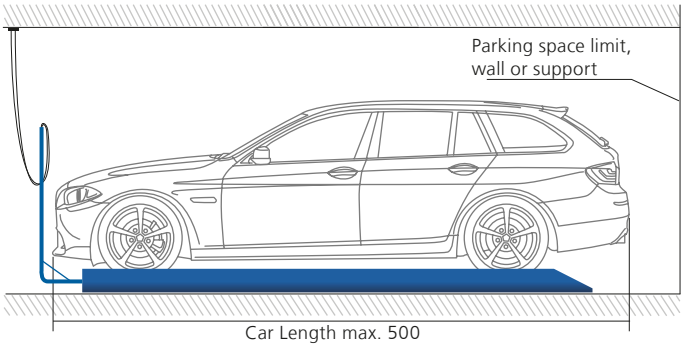
Made in Germany

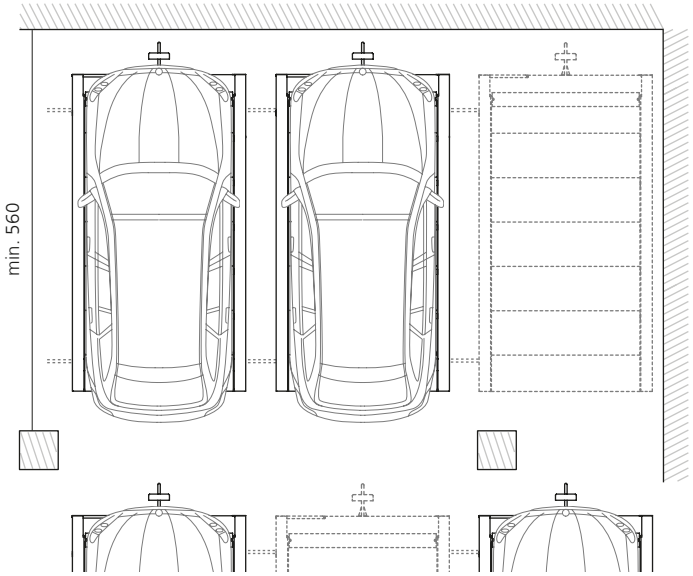
Note:
The total system must be capable of being monitored from the control console, otherwise additional gates must be installed. Flashing lights are installed in the ceiling area.

TECHNICAL DATA

CROSSWISE PUSHABLE PARKING PALLETS N6301 FOR 1 CAR







The crosswise pushable parking pallets reduce traffic area and use the space behind supports and in corners.

The electrically driven pallets run on rails and can also be stored in several parking rows that are assigned back to back.

An empty space is needed in each pallet row to be able to reach the row behind.

Power supply is from the ceiling with hanging cables, optionally also available with powered rails.

There is one drive wheel on each rail.

Direct-drive, without additional chains or chain wheels

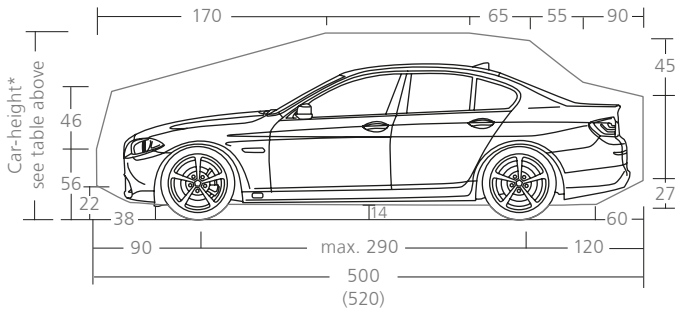
With low drive-on height.

Operation: up to 2 pallets with simple key switch.
From 3 pallets with a freely programmable PC touch screen

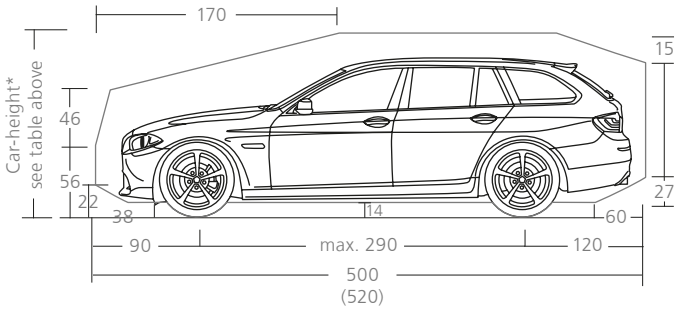
INTERIOR WIDTH	EXTERNAL WIDTH
195	225
205	235
215	245
225	255

The car height must be at least 10cm lower than the ceiling height.
Parking space loading: max. 2,000 kg, wheel load max. 500kg. Optional up to max. 2,300 kg, wheel load 575 kg or up to max. 2,600 kg, wheel load max. 650 kg
Concrete: min. 18 C25, level according to DIN 18202, Tab. 3, row 3.
All dimensions in cm. The dimensions are the minimum manufacturing dimensions.

VEHICLE DATA: STANDARD CAR



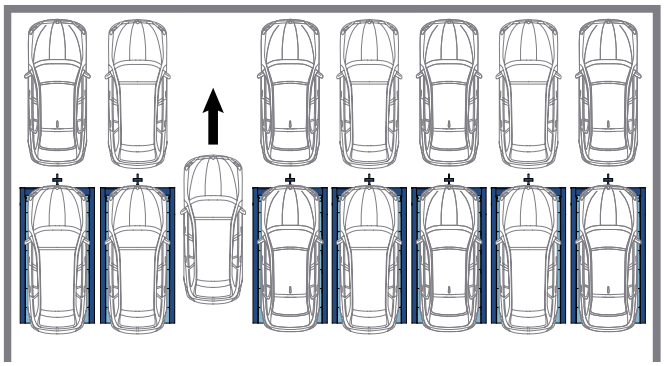
VEHICLE DATA: STANDARD ESTATE CAR



Note:
The case examples described only show some examples of how the pallets can be used. Talk to us to get support for your case and situation.

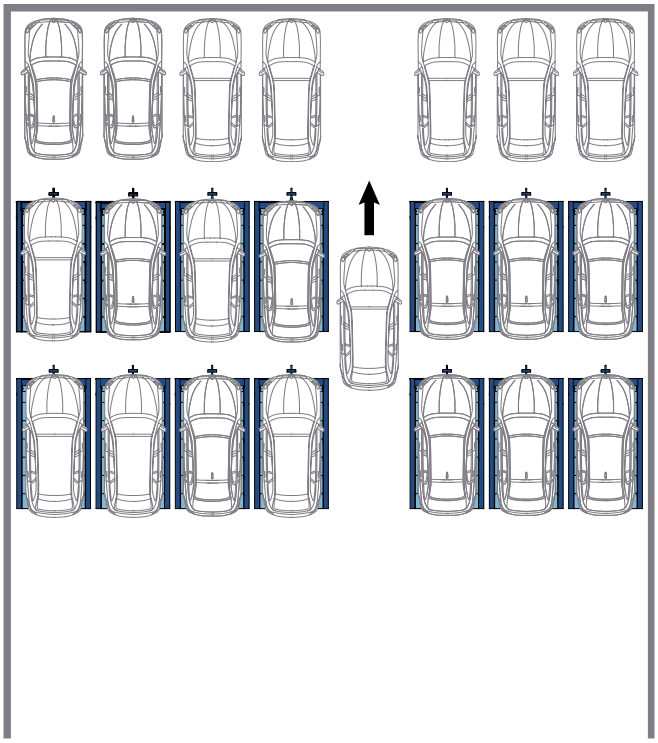
FUNCTION AND CASE EXAMPLES

CASE EXAMPLE 1: SINGLE ROW



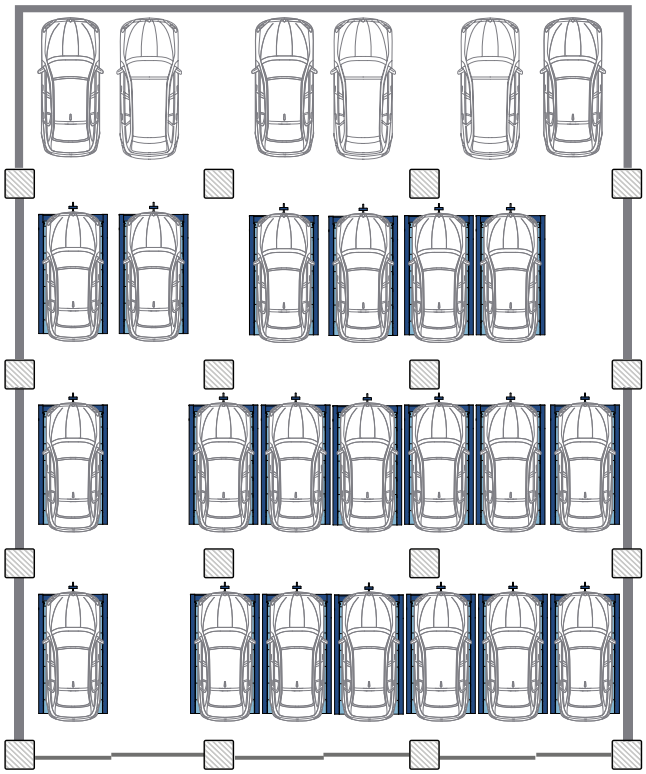
Adjacent and back to back
It is possible not only to store pallets adjacent to each other but also to install various rows behind each other. The required empty spaces per row makes it possible to push the pallets and create a through path. Cars can then drive through the space between the pallet rows to the back row and park.

CASE EXAMPLE 2: DOUBLE ROW



Adjacent and back to back
It is possible not only to store pallets adjacent to each other but also to install various rows behind each other. The required empty space per row makes it possible to push the pallets of both rows and create a through path.
Cars can then drive through the space between both pallet rows to the back row and park.

CASE EXAMPLE 3: TRIPLE ROW

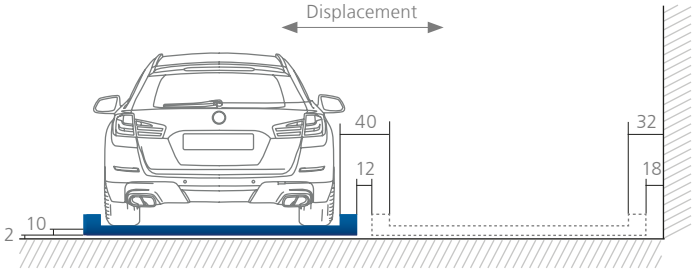


Intermediate parking spaces
Sometimes it is important, in addition to simply pushing to the end of the travel path to provide an intermediate space during displacement.
This makes it easier to move past columns and other obstacles.

SAFETY DISTANCES AND FLOOR EVENNESS TOLERANCES

SAFETY DISTANCES

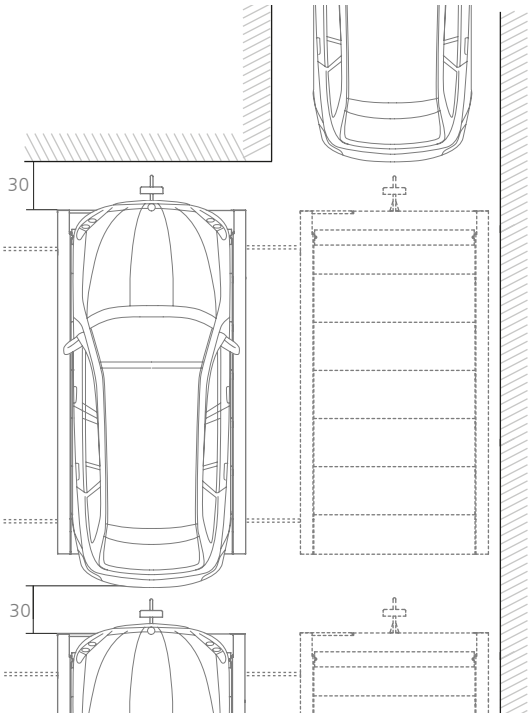
Distance from the side wall and between pallets:



Excerpt from DIN EN 14010: 2009-12, 5.9: „Safety devices for non-automated horizontally moving parking equipment".

„If the above-mentioned safety distances cannot be complied with due to the building design, or viewing the parking equipment is limited from the operating stand, then danger zones must be implemented between moving or moving and fixed parts in a range of 0.3 to 1.5 m above the floor, using safety equipment, e.g. sensitive edges, light barriers, laser scanners. This does not apply to buffers and coupling equipment".

Distances from the back wall and between cars:



Drawings: Excerpt from DIN EN 14010:2009-12, Figure C.2 - Safety distances according to 5.8.4.2

FLOOR EVENNESS TOLERANCES

According to DIN EN 14010, a maximum safety distance of 2 cm is permitted between the lower edge of the parking pallet and the floor. For this reason, ensure that the floor has an appropriate evenness (screed recommended). Tolerance for evenness of the driving lane must be complied with according to DIN 18202 Table 3 Row 3.

Excerpt from DIN 18202 Table 3

GAP	1	2	4	10	13	14
ROW	COVER	Dimensions as a limit in mm for measurement point distances in m.				
		0,1	1	4	10	15
2	Incomplete top surface of covers, bottom concrete layer and sub-floors with increased specifications, e.g. to receive floating screeds, industrial floors, tiles and slab flooring, compound screed, completed surfaces for subordinate purposes, e.g. in storage areas, cellars.	5	8	12	15	20
3	Finished surface flooring, e.g. screed as a usable surface to receive floor coverings. Tile flooring, smoothed and glued flooring.	2	4	10	12	15

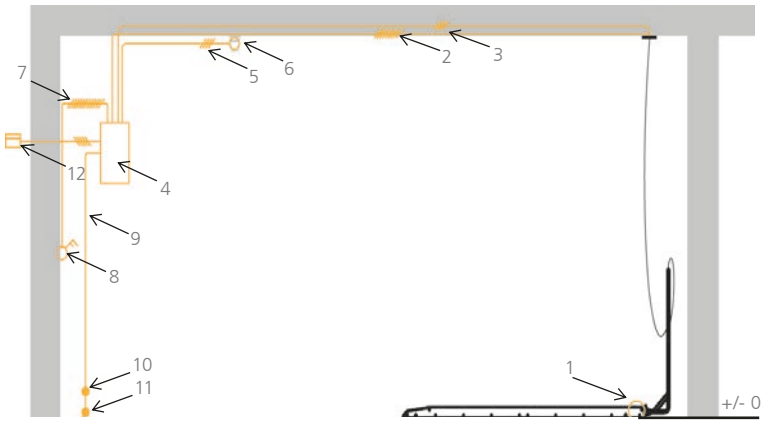
*** These measurement point distance values are contained in Table 3 of DIN 18202, the values for other distances are interpolated.**

ELECTRICAL INSTALLATION AND FOUNDATION STRENGTH

Scope of delivery NU-SPACE

POS.	NUMBER	DESCRIPTION
1	1x	Electrical drive 0.25 kW, 400V/0.8A IP44
2	1x	Control line 9x1 mm² Ölflex classic 110
3	1x	Motor line 4x1 mm² Ölflex classic 110
4	1x	Control cabinet IP 66 Rittal
5	1x	Control line 4x1 mm² Ölflex classic 110
6	1x	Flashing lamp with self-testing
7	1x	Control line 12x1 mm²
	1x	From 3 pallets: Bus cable 1x2x0.22 mm²
8	1x	Operating element
9	1x	Supply line 5x 2.5mm² (3 PH+N+PE) with labelled wires + grounding conductor

Installation schematic



On-site provisions

POS.	NUMBER	DESCRIPTION	POSITION	FREQUENCY
10	1x	Fuse or circuit breaker 3 x 16 A slow-blow according to DIN VDI 0100 Part 430	in the supply	1x per system
11	1x	Potential equalisation according to DIN EN 60204 from the foundation connection to the system		1x per system
12	1x	Current meter	to the control cabinet	1x per system

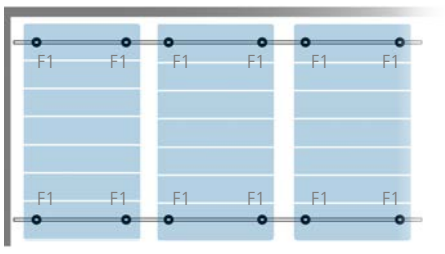
Positions 1 - 9 are contained in the scope of delivery of NU-SPACE as long as no other agreements were made in the contract.

FOUNDATION STRENGTH AND BUILDING DESIGN

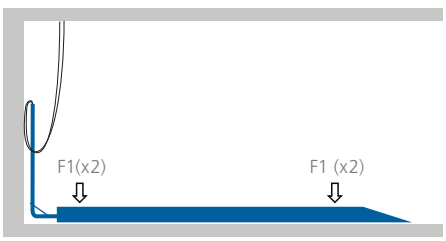
The foundation must be planned so that it can accept the forces occurring from the parking system according to the principle schematic.

The gluing anchors must be provided on-site for increased foundation requirements, if required. Foundation, walls and covers must be completed on-site before assembly start and must be to dimension, clean and dry. Floors and walls (below the drive-in level) must be made of steel reinforced concrete, concrete quality a min. C25/30.

Floor plan



Side view



Load details

PARKING SPACE LOADING	FORCE F1 (ROLLERS)
2.000 Kg	8 kN
2.300 Kg	9 kN
2.600 Kg	10 kN

The details for force F1 must be transferred to 4 rollers.

NOTE:
We recommend regular maintenance, care and cleaning. Use the NU-SPACE maintenance contracts.

STANDARD EQUIPMENT

Contained in the scope of delivery

INVENTORY

For N6101: Lengthwise pushing platform with drive rails on guide tails with electrical drive elements and controls. With dead man controls.

DRIVING PANEL

Platforms with side bolsters and drive panels made of corrugated panels.

SYSTEM DIMENSIONS

Parking space length: 500 cm
Parking space width: 217 cm
System width incl. drive: 260 cm
Parking space load to 2,000 kg

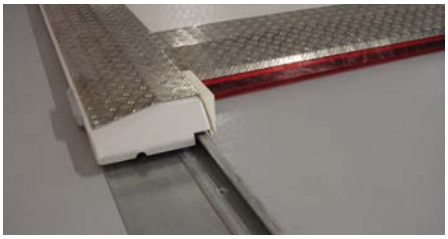
OPERATING ELEMENT

Key switch with button for the movement direction and emergency stop in dead man controls with brief operating manual and wiring to the unit.

MOBILE DRIVE

Mobile drive 0.25 kW, 400V/0.8A integrated into the platform. Dimensions of the control cabinet: 60 x 22 x 80 cm.

ABOVE GROUND DRIVE



The drive rails and the guide rails are anchored directly to the floor in front of support during assembly of the pusher platforms in the underground garage. Warning: When assigning several lengthwise plates next to each other, consider that platforms can only be moved by operating elements that are located in a radius of 20m (refer to DIN EN 14010, item 5.8.4.2) so that a visual monitoring of the movement is possible.

CORROSION PROTECTION

C3-Line
for areas with snow and average humidity (standard in Germany).

C2-Line
Only for inside installations and for regions with hardly any snow and low humidity.

ELECTRICAL INSTALLATION

For the scope of performance and interfaces, see corresponding table in the brochure.

DOCUMENTATION

Brief operating manual (fastening at the operating unit), documentation (test book with operating manual).

SAFETY EQUIPMENT

- Fastening parking system and unit with heavy duty anchors, electrical wiring with impact anchors.

- Drive on wedge for vehicle positioning
  Note:
- Enclosures against shear and crushing points have priority and must be provided on-site.

Made in Germany

NOTE:
We recommend regular maintenance, care and cleaning. Use the NU-SPACE maintenance contracts.

OPTIONAL CUSTOM EQUIPMENT

Available on request - examples

SYSTEM DIMENSIONS

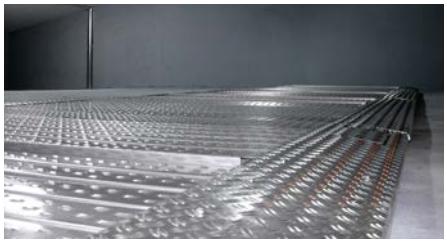
Parking space length: 530cm
Parking space width: from 195 to 220 cm

Fasten parking system with gluing anchors for increased foundation requirements.

VEHICLE WEIGHT

Parking place loads up to 2,300 kg or a maximum of 2,600 kg.

ALU DRIVING PANEL



Upper platforms with driving panels made of aluminium anti-slip plate.

WALKWAY

Walkway for corrugated panel for better accessibility

Walkway for better accessibility for corrugated panel covering Positioning on the left side of the parking space. 1.5 mm galvanised panel, surface imprinted, walkway is screwed to the driving panel.

CORROSION PROTECTION

C3 line (outside of Germany) for areas with snow and average humidity (standard in Germany). The frame is powder-coated. Driving panel is 2mm strip galvanised and powder-coated. Frame cover made of aluminium anti-slip plate.

HYDRAULICS

- HVLP 32-330 oil at external temperature oscillations.
- Heated hydraulic unit.

ADDITIONAL OPERATING ELEMENTS

A key switch is contained as standard in the scope of delivery. If you would prefer an operating element, it is possible to deliver several operating elements.

PLATFORM LINKING

It is possible to link up to 5 N6101 individual pallets or up to 3 N6201 double pallets.

TOUCH-SCREEN

Touch screen with key switch and emergency stop in dead man controls.

ADDITIONAL FLASHING LAMPS

The flashing lamps signals that the system is in operation and therefore gives the user and people in the vicinity of the system more safety during use. A flashing lamp can be used for up to 2 systems.

RUBBER SWITCH OFF BAR

To prevent crushing points. The system stops automatically if it hits an obstacle.

LIGHT BARRIER FOR MAX. 20 M

Light barrier, to monitor the system electrically for maximum safety during use. If required, stands are also available for the light barriers.

MANUAL OR ELECTRICAL GATES

It is also possible to receive manual or electric gates for your system.
The electrical gates can also be operated with an optionally deliverable remote control.

POWER RAIL

This protects the cable.

ON-SITE PROVISIONS AND PLANNING INSTRUCTIONS

Please follow and consider during planning!

ON-SITE PROVISIONS

ENCLOSURES

Enclosures according to DIN EN ISO 13857 must be provided on-site.

PARKING SPACE NUMBERING

To assign parking space we recommend that you number the parking spaces on-site.

NOISE PROTECTION MEASURES

On-site fulfilment of noise protection measures, the basis is the standard DIN 4109: „Noise protection in buildings".

ILLUMINATION

Execution on-site according to DIN 67528: „Illumination of parking spaces and off-street parking".

ELECTRICAL INSTALLATION

A lockable main switch must be completed at the start of construction outside of the system / pit close to the unit.
The electrical provisions must be executed on-site according to the brochure details.

ASSEMBLY PRE-REQUISITES

On-site compliance of assembly pre-requisites according to the offer.

FIRE PROTECTION

Conditions for fire protection and required measures must be agreed to and executed on-site with local fire protection authorities.

WALL BREAKTHROUGHS

Wall breakthrough 10 cm x 10 cm is to be done on-site for hydraulics and electrical line for intermediate walls.

BUILDING APPROVAL

Integration of the car parking system must be approved according LBO and GAVO.

OPERATING ELEMENT

A level area (L x W) 50 cm x 20 cm must be provided on-site to attach the operating elements close to the system, outside of the movement area of the platform.

PLANNING INSTRUCTIONS

PARKING SPACE WIDTH AND DRIVING LANES

During planning of parking space dimensions and driving lane dimensions, country-specific regulations for building garages must be followed.
In Germany this is the garage ordinances for each federal state. For more parking comfort we recommend that you plan a parking space width of at least 250 cm.

USER GROUP

Our parking systems are designed for a consistent, trained user group.

MAINTENANCE AND CARE

Proper completion of a maintenance contract is recommended. Maintenance, care and cleaning is recommended at regular intervals.

EU MACHINERY DIRECTIVE

Our parking systems correspond to the EC Machinery Directive and are CE certified according to DIN EN 14010.

SUITABILITY OF THE RAMP

Ramps that lead into an underground garage, may not have an incline of 15%.

CHANGES

Rights to technical changes are retained by NU-SPACE.