SWISS-PARK
A LÖDIGE INDUSTRIES COMPANY

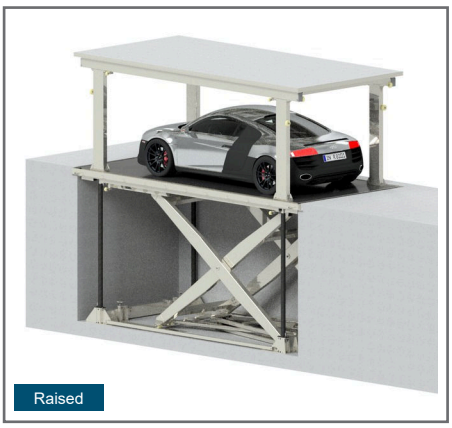
Lödige (United Kingdom) Ltd. | Floor 1, Watermans Court
Lotus Park, Kingsbury Crescent | TW18 3BA Staines | Phone: +44 1784 221140
e-mail: uk@lodige.com | www.lodige.co.uk

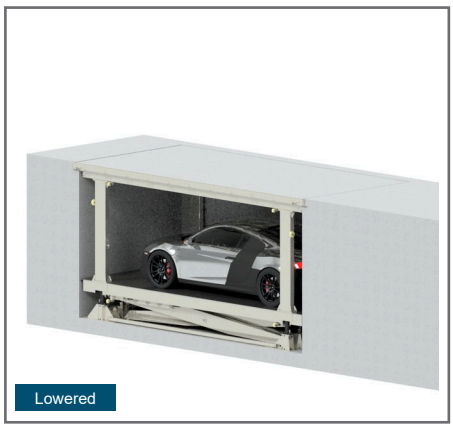
STORE-R-5-P
▶ Parking platform

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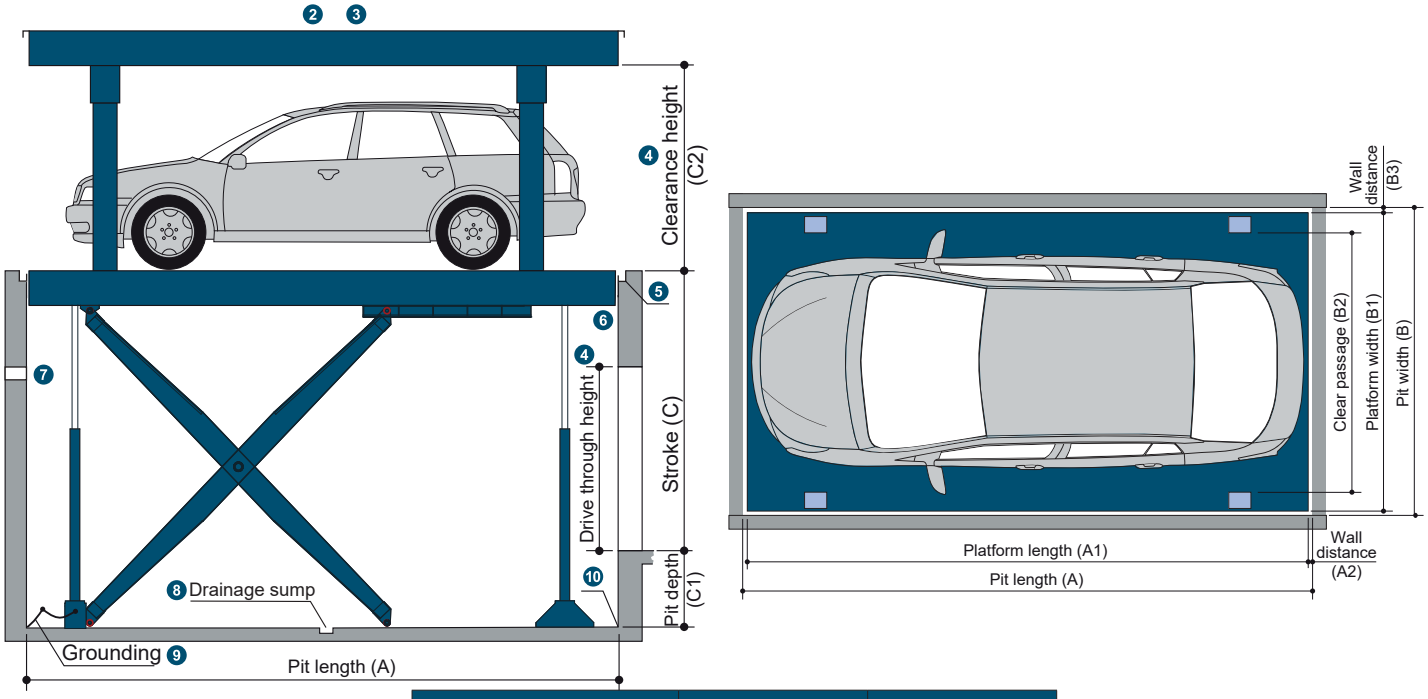
▶ Specification

- Stroke = up to 3700 mm
- Platform length = up to 6450 mm
- Platform width = up to 3000 mm
- Lifting capacity = up to 5000 kg (1)
- Estimated speed = 6 to 8 cm/sec


Raised


Lowered

▶ Model without driver on board



Parameter		Standard (mm)	Max (mm)
Pit length	A	5360	6500
Platform length	A1	5310	6450
Wall distance	A2	25	
Pit width	B	2500	3000
Platform width	B1	2450	2950
Clear passage	B2	2200	2700
Wall distance	B3	25	
Stroke	C	2700	3700
Pit depth	C1	570 to 620	
Clear passage	C2	1800	2200

▶ Notes

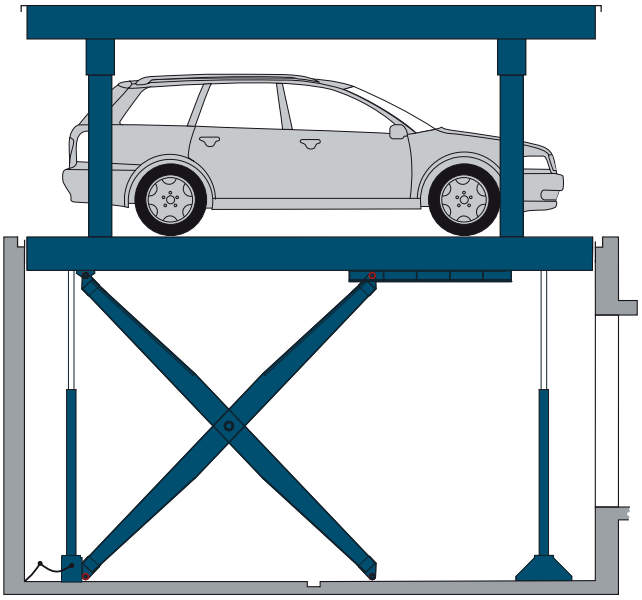
(1) Lifting capacity of the lift = Car to be lifted + Flooring weight on the roof of the lift (max. 250 kg/m²).
For example: if the max lifting capacity of the lift = 5000 kg, Car to be lifted (3000 kg) + flooring weight on roof of the lift (2000 kg) should not exceed 5000 kg.
(2) For countries with snowfall, the excessive snow on the lift is to be cleared before operating.
(3) During the lowered position of the lift, the roof of the lift can be considered as a parking space under specific conditions. The vehicle parked on the roof should be removed before operating the lift.
(4) Must be at least as high as the greatest car height + 5 cm.
(5) Surrounding drainage system with connection to sewerage system to be performed by the customer (see "**Drainage plan**", page 3).
(6) To comply with the minimum finished dimensions of the lift shaft, tolerances for space requirements $^{+3}_{0}$ according to VOB, Part C (DIN 18330 and 18331) and DIN 18202 must also be considered. Dimensions are in cm.
(7) Ventilation inside the lift shaft has to be provided by the customer. If the exact dimensions are required, please consult **Lödige Industries.**
(8) Grounding of the system to be connected to the central grounding on-site (to be provided by the customer).
(9) Drainage pit : 50 x 50 x 50 cm, install a sump pump (refer to manufacturer's dimensions). Please contact **Lödige Industries** before determining the location of the drainage sump.
(10) At the transition section between the pit floor and walls, no hollow mouldings/coves are possible. If hollow mouldings/coves are required, the systems must be designed smaller or the pits accordingly wider.

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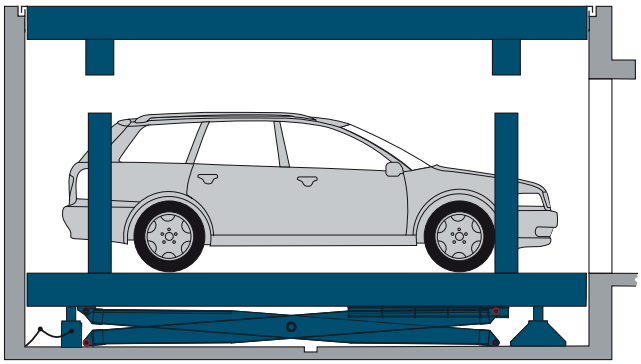
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▶ Lift position

System raised

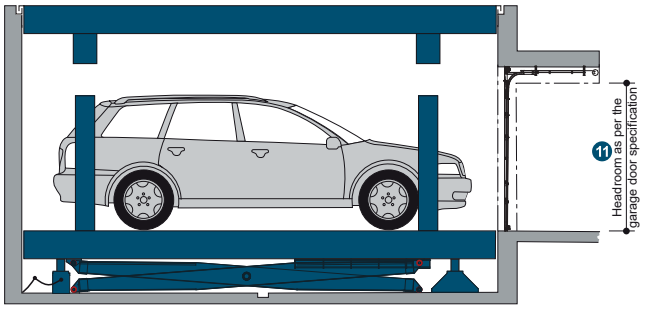


System lowered

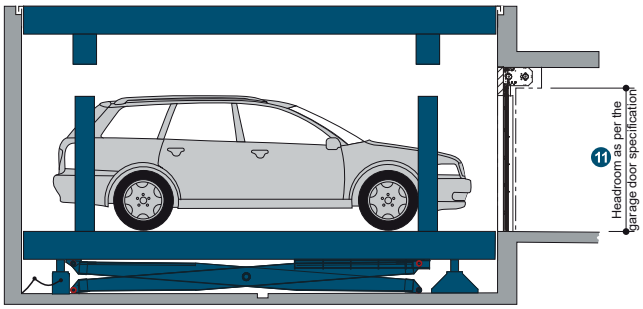


▶ Lift with garage door

Sectional garage door

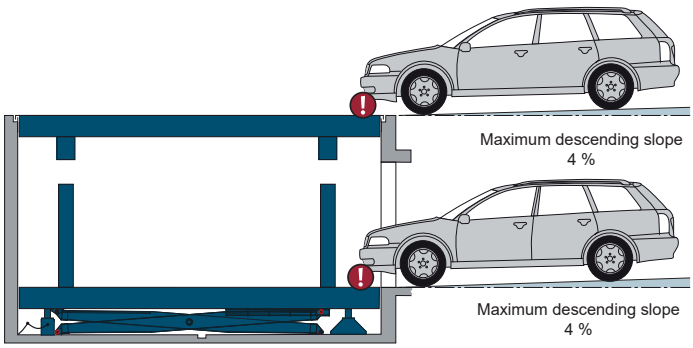


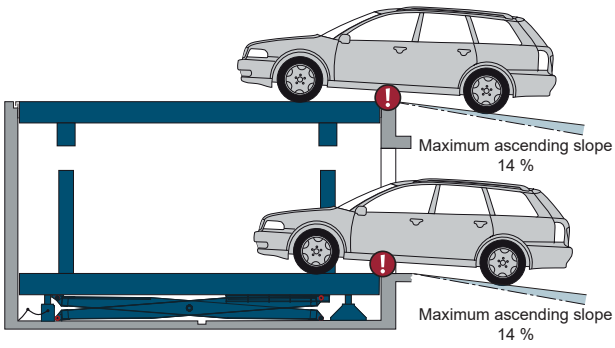
Roll-up garage door



11 Dimensions for all doors must be coordinated with the door supplier.
Coordination between the door manufacturer and **Lödige Industries** is necessary.

▶ Approach





The illustrated maximum approach angles must not be exceeded.

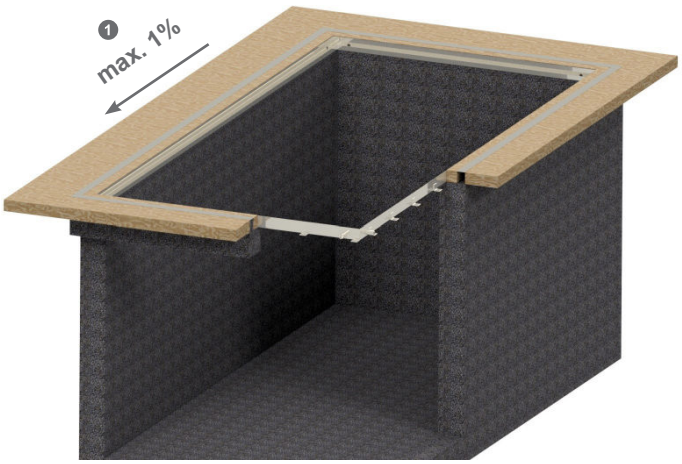
Incorrect approach angles will cause serious manoeuvring and positioning problems on the parking system for which the company **Lödige Industries** accepts no responsibility.

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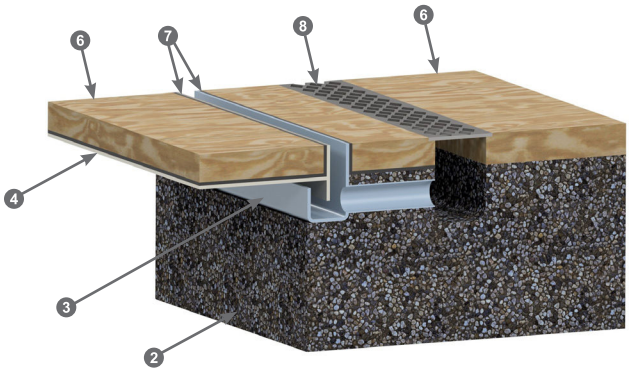
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▶ Drainage plan

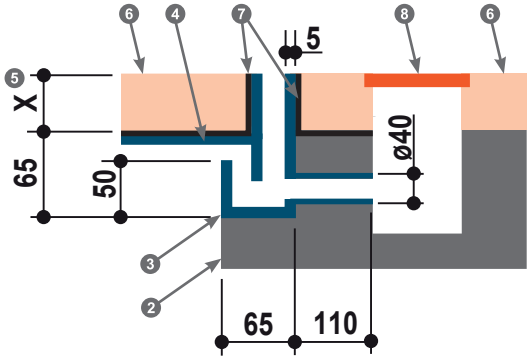
Overview of the pit



Section view of drainage channel



Section view of drainage channel

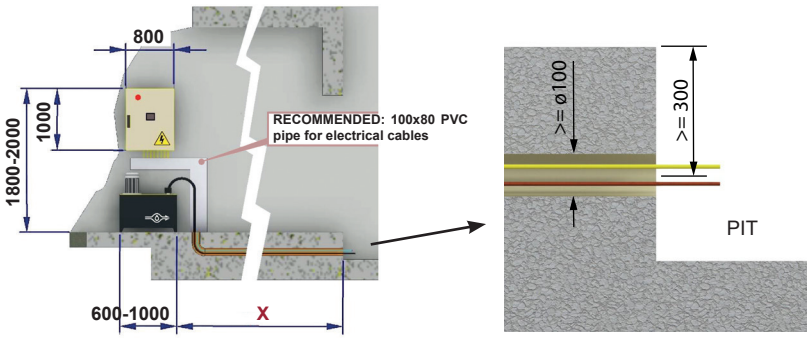


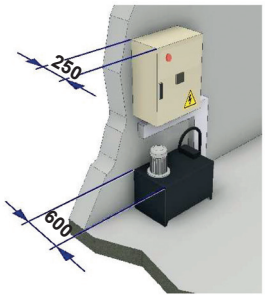
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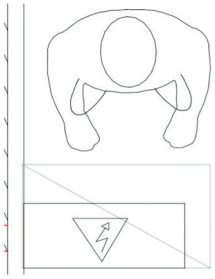
1. The slope of the drainage channel towards the entrance side.
2. Inner wall of the lift shaft.
3. Drainage channel will be provided by **Lödige Industrie**s and to be installed by the customer.
4. Roof of the platform.
5. Height of the flooring. The standard value of X = 50mm.
6. Flooring on the roof (max. 250 kg/m²) and surrounding to be performed by the customer. The total lifting capacity of the lift is including the vehicle to be lifted and the weight of the flooring on the roof of the lift.
   For example: if the max lifting capacity of the lift = 5000 kg, Car to be lifted (3000 kg) + the flooring weight on the roof of the lift (2000 kg) should not exceed 5000 kg.
7. Waterproofing on the roof and lift shaft to be performed by the customer.
8. Surrounding drainage channel with connection to sewerage system to be performed by the customer.

▶ Detail building construction – Hydraulic & Electric unit

The room where to place the hydraulic unit and the electric control panel will be positioned must be chosen carefully and must be easily accessible from the outside. It is recommended that this room be closed with its own door with a key.







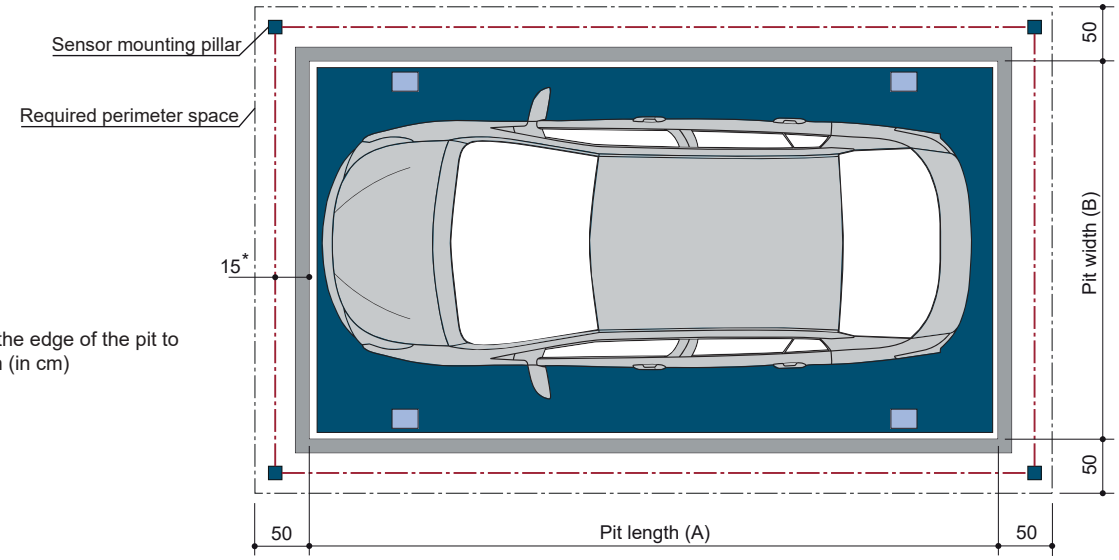
- The shaft pit and machine room must be painted with oil-resistant paint.
- The room chosen must have adequate ventilation to allow the electric motor to dissipate the heat produced during operation (< 50°C).
- Arrange plastic ducts as indicated for containing all the electrical cables coming from the pit compartment, push-button panels, doors etc.
- The pit must be connected to the electrical panel with 2 separate pipes with a minimum diameter of 100 mm to allow the passage of electric cables and hydraulic hoses. Avoid 90° bends in the pipes.
- When positioning the electrical panel and the hydraulic power unit, consider the measures indicated and provide sufficient space in front of it to ensure easy maintenance.

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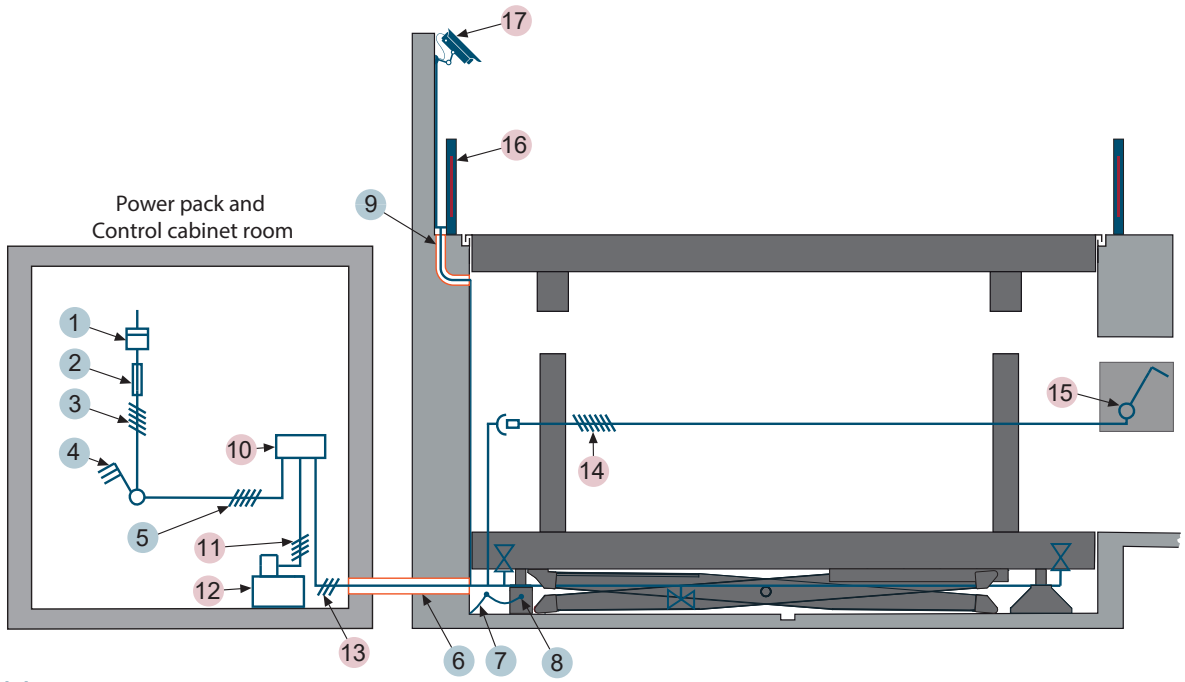
▶ Sensor installation

The roof of the platform is protected using safety light curtains. These safety light curtains are installed on the sensor mounting pillars around the perimeter of the pit. For installation of these pillars, 50 cm of free space is required around the perimeter of the pit. For a detailed plan, please consult **Lödige Industries.**



* - Distance from the edge of the pit to the light curtain (in cm)

▶ Electrical installation



Electrical data to be performed by the customer

No.	Qty.	Description	Position
1	1	Electricity meter	in the supply line
2	1	Main fuse : 3 x fuse 32 A (slow) or circuit breaker 3 x 32 A (trigger characteristic K, G or C)	in the supply line
3	1	Supply line 5 x 2.5 mm² (3 PH + N + PE) with marked wire and protective conductor	to main switch
4	1	Lockable main switch	defined at the plan check
5	1	Supply line 5 x 2.5 mm₂ (3 PH + N + PE) with marked wire and protective conductor	from main switch to unit
6	2	Min. ø100 pipe	from power pack and control cabinet to pit floor
7	every 10 m	Foundation earth connector	corner of pit floor
8	1	Potential equalization from foundation grounding connection system according to DIN EN 60204	
9	1	Min. ø30 pipe	from pit to drive surface

Electrical data included in delivery of **Lödige Industries**

No.	Designation
10	Junction box unit
11	Control line 4 x 2.5 mm₂ with marked wire and protective conductor
12	Hydraulic unit 5.2 kW / 11 kW, three phase current, 230/400 V, 50 Hz
13	Control line 3 x 1 mm² (PH + N + PE)
14	Control line 4 x 1 mm² with marked wire and protective conductor
15	Operating device with video display
16	Safety light curtain with mounting pillar
17	Camera

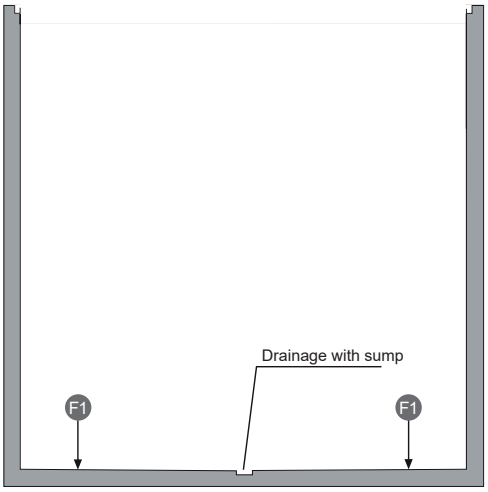
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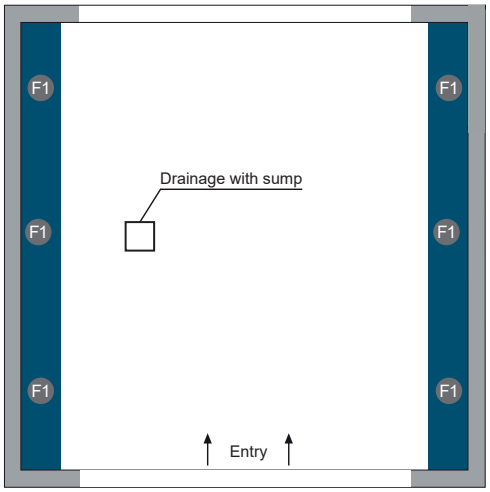
▶ Load plan

- The platforms are anchored into the side walls and ground. The drill hole depth on the floor is approx. 15 cm, and on the walls approx. 12 cm.
- Floor and walls below the drive-in level must be made of concrete (concrete quality min. C20/25)!
- The dimensions of the load-bearing points are approximate. If the exact dimensions are required, please consult **Lödige Industries**.

Section view



Top view



Force (kN)
F1
+70

▶ Technical hint

Usage area
The system is suitable for indoor installation and to lift cars without a driver on board. The platform is suitable for residential as well as office buildings. Feel free to contact **Lödige Industries** for consultation.

Units
Low-noise hydraulic units are installed. We also recommend separating the garage body from the residential building. The hydraulic unit and the electrical components must be housed in a cabinet (see **“Detail building construction – Hydraulic & Electric unit”**, page 3).

CE certification
The systems offered correspond to the EC Machinery Directive 2006/42/EC.

Building application documents
According to the EC Machinery Directive 2006/42/EC, the **swiss-park** systems are subject to approval. Please observe the local rules and regulations.

Available documents
- Maintenance offer / contract
- Declaration of conformity

Environmental conditions
Ambient conditions for the areas around platform systems:
- Temperature range -10 °C to +40 °C
- Relative humidity of 50% at a maximum outside temperature of +40 °C.

The lifting and lowering of the platform are calculated at an ambient temperature of +10 °C and with the hydraulic system positioned immediately adjacent to the platform. The operating time of the platform increases at lower ambient temperatures or with longer hydraulic lines.

Care & Protection
To avoid corrosion damage, please follow separate cleaning and care instructions (as per the **“Corrosion protection”** sheet) and ensure that your garage is well ventilated.

Noise protection
Standard noise protection:
As per DIN 4109-1 (Sound insulation in buildings – Part 1: Minimum requirements) - Section 9:
- Maximum noise level in living and sleeping areas 30 dB (A).

Noise created by users is not considered.

The following dimensions are required for adherence to this value:
- Noise protection package in accordance with quote/order (**Lödige Industries**).
- Noise insulation dimension of the building structure of minimum weighted sound reduction index, min. R‘w = 57 dB (service to be provided by the customer)

Increased noise protection (special agreement):
As per DIN 4109-5 (Sound insulation in buildings - Part 5: Increased requirements) - Section 8:
- Maximum noise pressure level in living and sleeping areas 25 dB (A).

Noise created by users is not considered.

The following dimensions are required for adherence to this value:
- Noise protection package in accordance with quote/order (**Lödige Industries**).
- Noise insulation dimension of the building structure of min. R’w = 62 dB (service to be provided by the customer)

HINT : User noises are the noises that can be influenced by individual users of our **swiss-park** systems. These are created during the accessing of the platform, slamming of vehicle doors, engine, and brake noise.

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► Facilities to be provided by the customer

Safety barriers
During the platform construction, in accordance with DIN EN ISO 13857, safety barriers are to be placed immediately in front of, adjacent to, or behind the systems where there are roadways.

Building services
Any lighting, ventilation, fire extinguishing and fire alarm systems, as well as clarification and compliance with the relevant regulatory requirements.

Ventilation
To ensure a continuous exchange of air, to reduce air humidity, prevent condensation and reduce vehicle moisture (from rain, snow, etc.), we recommend that the customer provide a ventilation system in conjunction with a specialist. This will help to minimise the risk of corrosion and resulting faults.

Lighting
The customer must observe local regulations pertaining to the illumination of parking spaces and roadways. In accordance with DIN EN 12464-1 'Light and lighting - Lighting of work places', an illumination level of min. 200 lx is recommended for the parking spaces and operating area of the system.

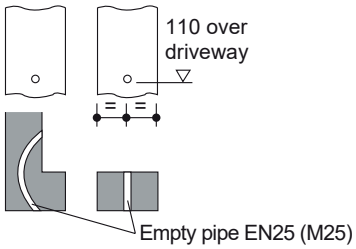
Drainage
A pump or drain sewerage is to be installed in the drainage sump (50 x 50 x 20 cm) inside the pit to avoid stagnant water (Component defect due to stagnant water will no longer be covered under warranty). For reasons of environmental protection, we recommend painting the pit floor, and to provide oil and petrol separators in the connections to the public sewage network.

Electrical supply to the main switch / Foundation earth connector
The customer must lay the supply cable to the master switch during assembly. Functional capability can be checked by our engineers on-site, in conjunction with the electrical engineer. If this is not possible during assembly for reasons attributable to the customer, the customer must commission an electrical engineer.

The customer must earth the steel structure with a foundation earth connection (earthing distance max. 10 m) and equipotential bonding in accordance with DIN EN 60204 (see **"Electrical installation"**, page 4)

Control panel
Empty conduits and recesses for the operating element (see **"Electrical installation"**, page 4). Consultation with **Lödige Industries** is required when using folding doors.

Control panel on plaster



Accessibility
If installation by **Lödige Industries**, free accessibility of the pit with a crane or truck for lowering the lift. For completion, the lift must be accessible by car. It must be possible to attach the sensor pillars required for canopy monitoring at a distance of 10-15 cm from the canopy.

Sealing
The sealing of the shaft and the roof of the platform is to be carried out by the customer.

Other services on-site
- Preparation of the lift shaft
- Measures for the implementation of water protection regulations
- Measures to comply with fire protection regulations and noise protection in accordance with DIN4109
- Foundation grounding if necessary
- All permits and approvals

If the following are not included in the quotation, they will also have to be provided/paid by the customer:
- Mounting of contactor and terminal box to the wall valve, complete wiring of all elements in accordance with the circuit diagram
- Costs for final technical approval by an authorised body
- Main switch
- Control line from main switch to hydraulic unit
- Railing

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▶ Description - Parking platform without driver on board

General description

- **Lödige Industries** parking platforms are for lifting heavy and large cars without a driver on board. The upper platform or roof may be used as a parking space under specific conditions.
- Dimensions according to the underlying pit, width and height dimensions.
- Passenger car positioning on the platform by means of positioning sensors on both sides (to be set in accordance with the operating instructions).
- Operation via a control element with Dead man's switch.
- Fixing the control element usually in front of the entrance or on the way revealing the outside.
- Operating instructions at every operating point.
- For parking platforms with an entrance door, special dimensions must be respected.

swiss-park system consisting of:

- 2 Rigid bases with foundation (fixed to the floor)
- 5 Hydraulic cylinders
- 1 Lower platform
- 1 Upper platform or Roof
- 4 Support pillars for the roof
- 4 scissor members
- 6 support beams for scissor members
- 4 / 8 Nylon guide rollers
- Dowels, screws, fasteners, connecting elements etc.

Platform consisting of:

- Checker plates
- Crossbeams
- Lateral beams
- Brackets
- Screws, nuts, etc.

Hydraulics consisting of:

- Hydraulic cylinders
- Solenoid valve
- Safety valves
- Hydraulic lines
- Hydraulic fittings
- High-pressure hoses
- Mounting material

Electrical system consisting of:

- 2 Operating elements (Emergency-stop, lock, access via RFID)
- Junction box unit
- Control cabinet

Hydraulic unit consisting of:

- Hydraulic oil tank
- Oil filling
- Internal gear pump
- Pump holder
- Coupling
- Three-phase motor (5.2 kW / 11 kW, 230/400 V, 50 Hz, low noise)
- Pressure gauge
- Pressure relief valve
- Hydraulic hoses (to reduce noise transmission to the hydraulic pipes)

We reserve the right to change these specifications without notice!

Lödige Industries reserves the right, in the course of technical and technological progress, to use newer or different technologies, systems, processes, procedures, or standards than those originally offered and ensure that the customer does not incur any disadvantage.