SWISS-PARK

A LÖDIGE INDUSTRIES COMPANY

# CAR LIFT - RISE-R-C



## Technical data sheet

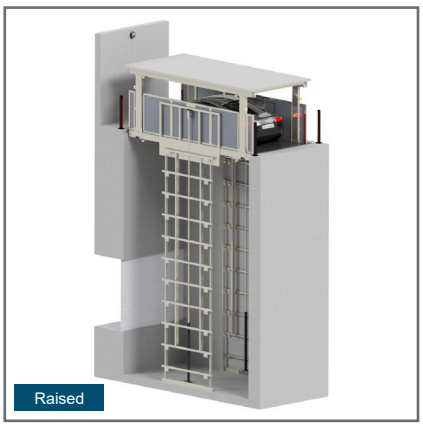
- ✓ TÜV certified
- ✓ CE certified
- ✓ With driver on board
- ✓ GSM
- ✓ Low noise
- ✓ Space saving
- ✓ Emergency battery
- ✓ Manual emergency lowering
- ✓ Positioning aid
- ✓ Drive-through sensors

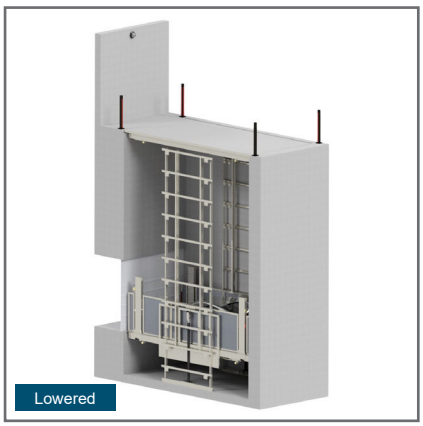
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# RISE-R-C
## ▶ Car lift

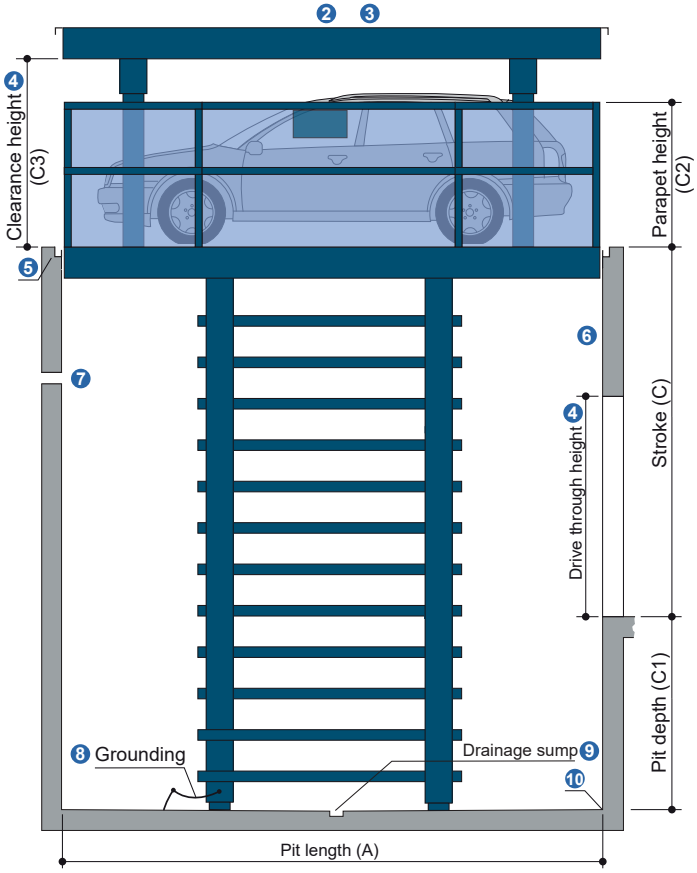


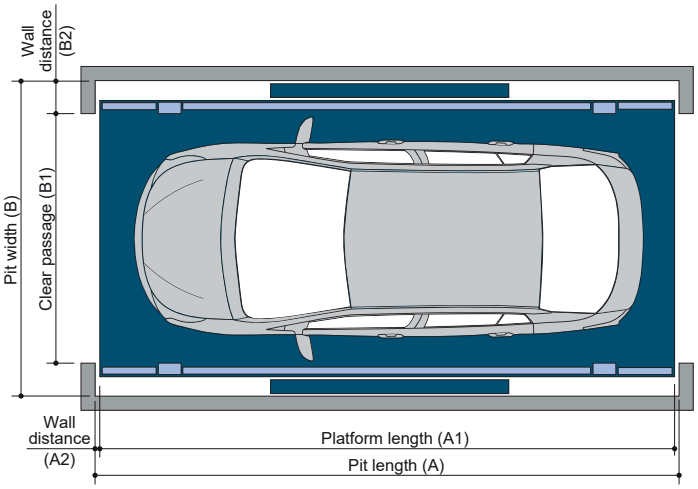




## ▶ Specification

- Stroke = up to 11500 mm
- Platform length = up to 6000 mm
- Platform width = up to 3500 mm
- Lifting capacity = up to 5000 kg ❶
- Estimated speed = 7 to 10 cm/sec

## ▶ Model with driver on board




*Please note: The choice of platform length and width depends on the vehicles to be moved. Define these dimensions according to the building project.

| Parameter | | Min. (mm) | Max. (mm) |
|---|---|---|---|
| Pit length | A | 5360 | 6000 |
| *Platform length | A1 | 5310 | 5950 |
| Wall distance | A2 | 25 | |
| Pit width | B | 3000 | 3500 |

| Parameter | | Min. (mm) | Max. (mm) |
|---|---|---|---|
| Clear passage | B1 | 2500 | 3000 |
| Side dimension | B2 | 250 | |
| Stroke | C | 3000 | 11500 |
| Pit depth | C1 | 1500 | |
| Parapet height | C2 | 1200 | 2100 |
| Clear passage | C3 | 1800 | 2200 |

## ▶ Notes

❶ Load capacity of the lift platform = Vehicle 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) must not exceed 5000 kg.
❷ In countries with snowfall, excessive snow on the lift must be removed before use. Snow in front of the sensors on the ground floor must also be cleared.
❸ When in the lowered position, the roof of the lift platform may, under certain conditions, be used as a parking surface. However, any vehicle parked on the roof must be removed before operating the lift platform.
❹ Maximum possible car height + 5 cm.
❺ Perimeter drainage with connection to the sewer system must be provided by the builder (see "**Drainage Plan**", page 3).
❻ Finished dimensions tolerances of the lift shaft: **+3 / -0 cm**.
❼ Ventilation inside the lift shaft must be provided by the builder. Please observe the applicable regulations. If the exact dimensions are required, please consult **Lödige Industries**.
❽ Grounding of the system to be connected to the central grounding on-site (to be provided by the builder).
❾ Drainage pit. Alternatively: fixed installation of a pump. Important: request the load area plan to ensure correct pit placement.
❿ 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 narrower or the pit wider.

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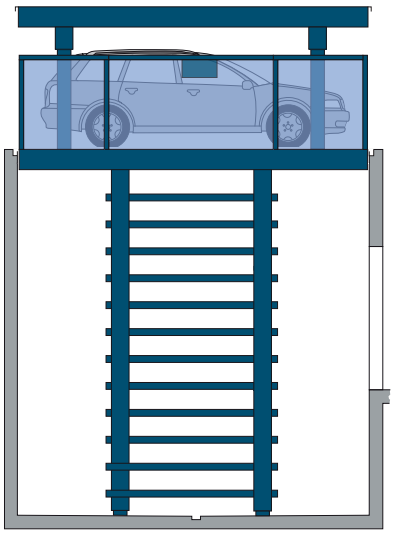
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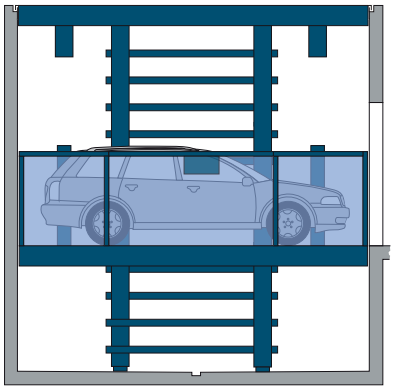
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## ▶ Lift position

### System raised

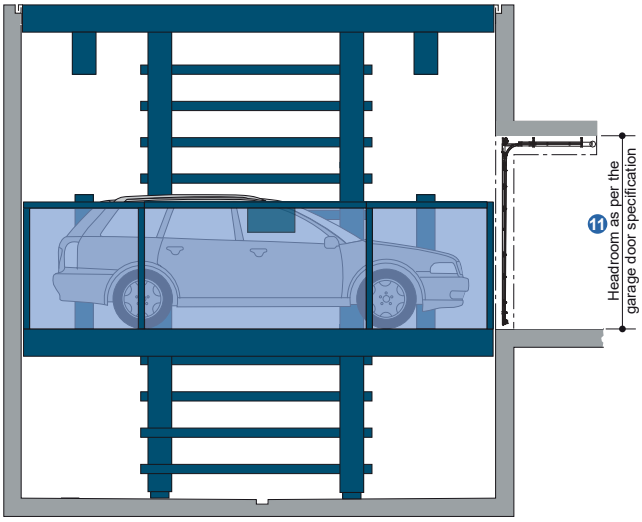


### System lowered

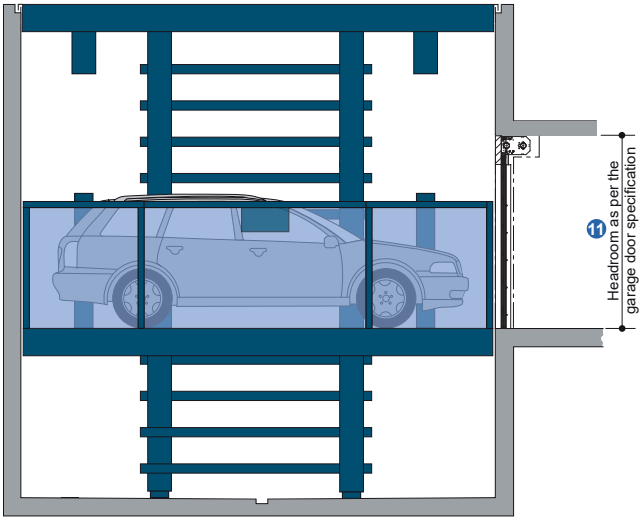


## ▶ Lift with garage door

### Sectional garage door

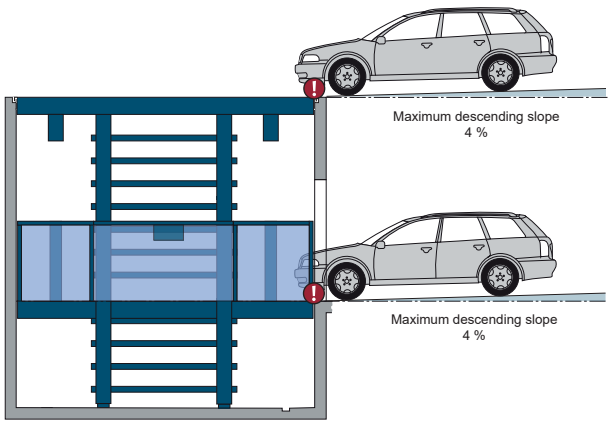


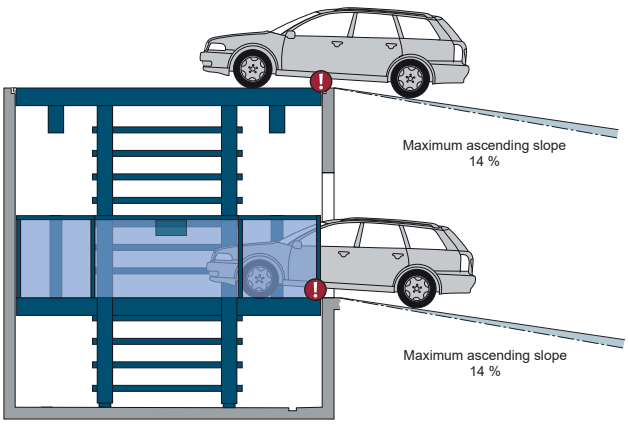

### Roll-up garage door




11 Dimensions for all doors must be coordinated with the doors supplier.
Coordination between the gate manufacturer and **Lödige Industries** is required. Ensure during planning that the gates do not collide with the parapets.
Refer to the information at swiss-park.com/door.

## ▶ Approach




The maximum access slopes indicated in the schematic must not be exceeded.

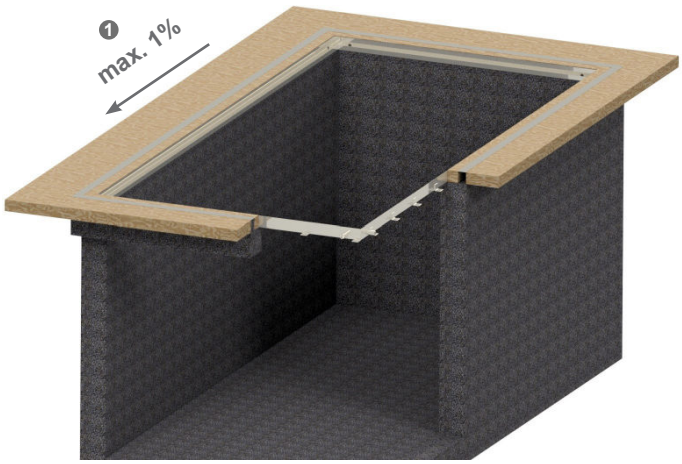
Incorrectly executed access may cause significant difficulties when driving onto the system, for which **Lödige Industries** is not responsible.

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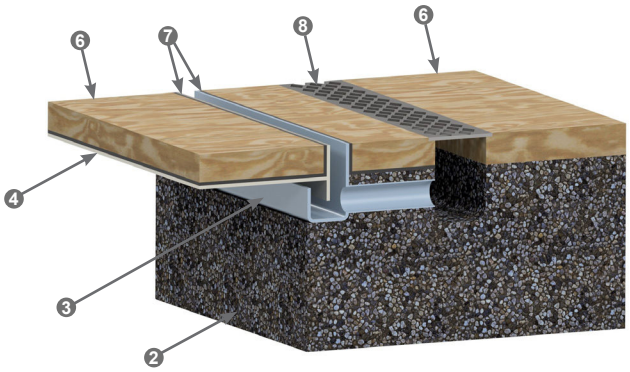


## ▶ Drainage plan

### Overview of the pit

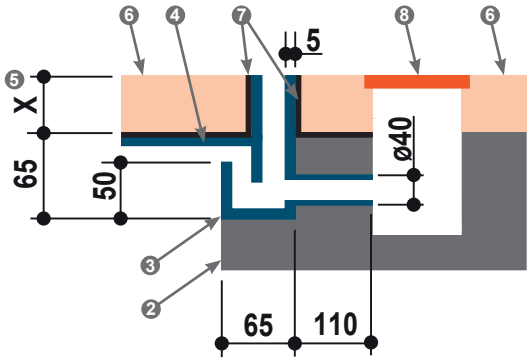



### Section view of drainage channel




**Sealing of the drainage, roof, and roof structure must be planned and executed by the builder.**

### Section view of drainage channel



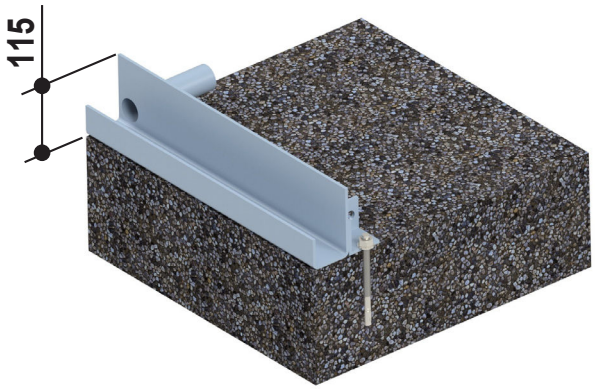

### Notes:

1. Slope of the drainage channel towards the entrance side.
2. Inner wall of the lift shaft.
3. Drainage channel will be provided by **Lödige Industries**.
4. Roof of the car lift.
5. Height of the flooring. The standard value of X = 50mm.
6. Flooring on the roof and surrounding area must be installed by the builder. The total lifting capacity of the lift includes 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) must not exceed 5000 kg.
7. The sealing of the roof and the lift shaft must be carried out by the builder.
8. The surrounding drainage channel/drainage with connection to the sewer system must be installed by the builder.

## ▶ Drainage channel installation

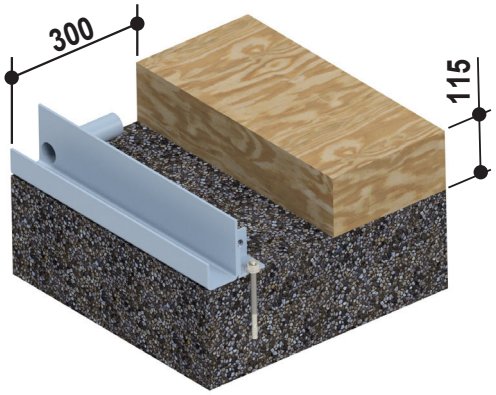
The Drainage channel of the car lifts is installed on the perimeter edge of the pit. The customer must plan the construction of the pit and the area around the pit with the assistance of **Lödige Industries,** precisely according to one of the options listed below.

### Option 1




- A height difference of 115 mm from the finished floor is required for the installation of the drainage channel.
- The on-site waterproofing and the final floor finish around the pit (115 mm) can only be completed after the drainage channel has been installed.
- Furthermore, the drainage pipes must be connected to the sewer system on-site by the builder.

### Option 2

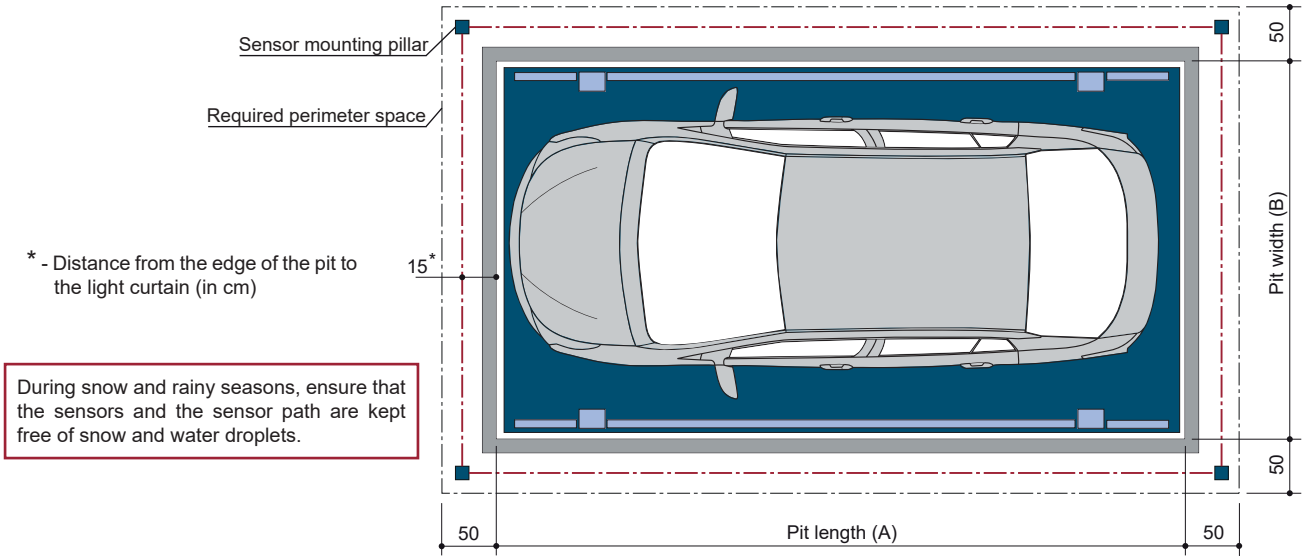



- For the installation of the drainage channel, a width of 300 mm and a height difference of 115 mm are required.
- The floor covering around the pit can be installed before the drainage channel is fitted, leaving a clearance of 115 mm in height and 300 mm in width around the drainage channel.
- After the drainage channel has been installed, the on-site waterproofing and the final floor finish can be completed by the builder.
- Furthermore, the drainage pipes must be connected to the sewer system on-site by the builder.

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## ▶ Sensor installation

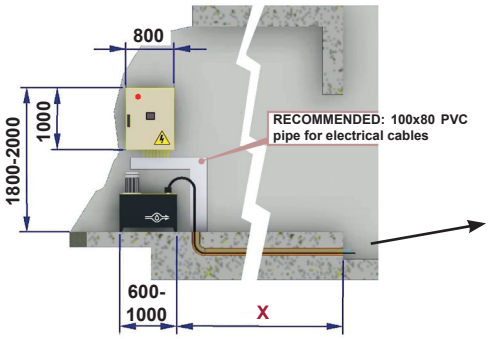
The hazardous areas of the lift are secured by safety light curtains. These safety light curtains are mounted on the sensor mounting columns at the edge of the elevator pit. A clearance of 50 cm around the pit is required for the installation of these columns. For a detailed layout plan, please contact **Lödige Industries.**

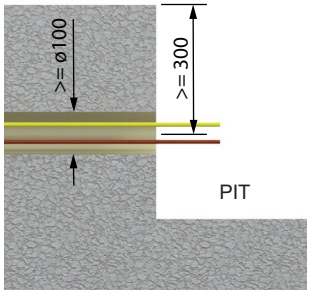


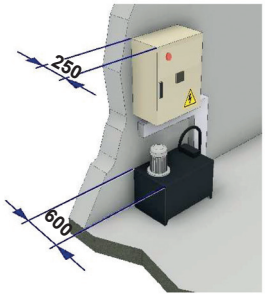

During snow and rainy seasons, ensure that the sensors and the sensor path are kept free of snow and water droplets.

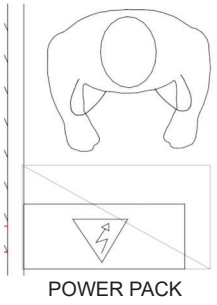
## ▶ Detail building construction – Hydraulic & Electric unit

The room housing the hydraulic unit and control cabinet should be carefully selected and easily accessible from the outside. The room must be lockable with a door (including panic function).



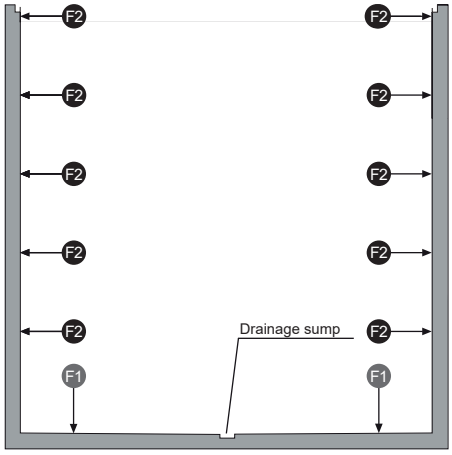




- Shaft pit and drive unit room must be coated with oil-resistant paint (to be provided by the builder).
- The technical room must have sufficient ventilation to prevent overheating of the electric motor and hydraulic oil (< 50°C). Lighting must also be provided by the builder.
- Please ensure the PVC conduit is used for proper cable routing.
- For the cables from the control cabinet to the technical pit, 2 empty conduits with a minimum diameter of 100 mm must be provided. Avoid bends > 90°. Maximum distance: 13 meters.
- When positioning the control cabinet and hydraulic unit, consider the specified dimensions and provide sufficient space in front of the control cabinet to allow easy maintenance.

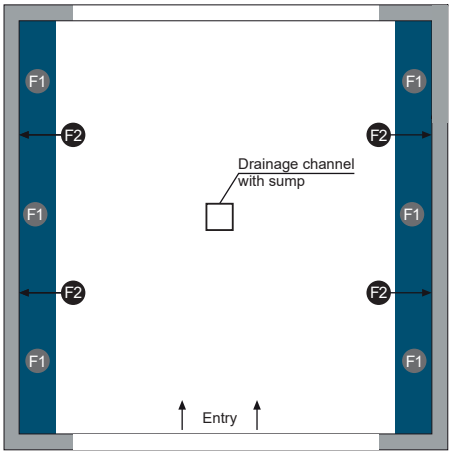
## ▶ Load plan

- The car lifts 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**



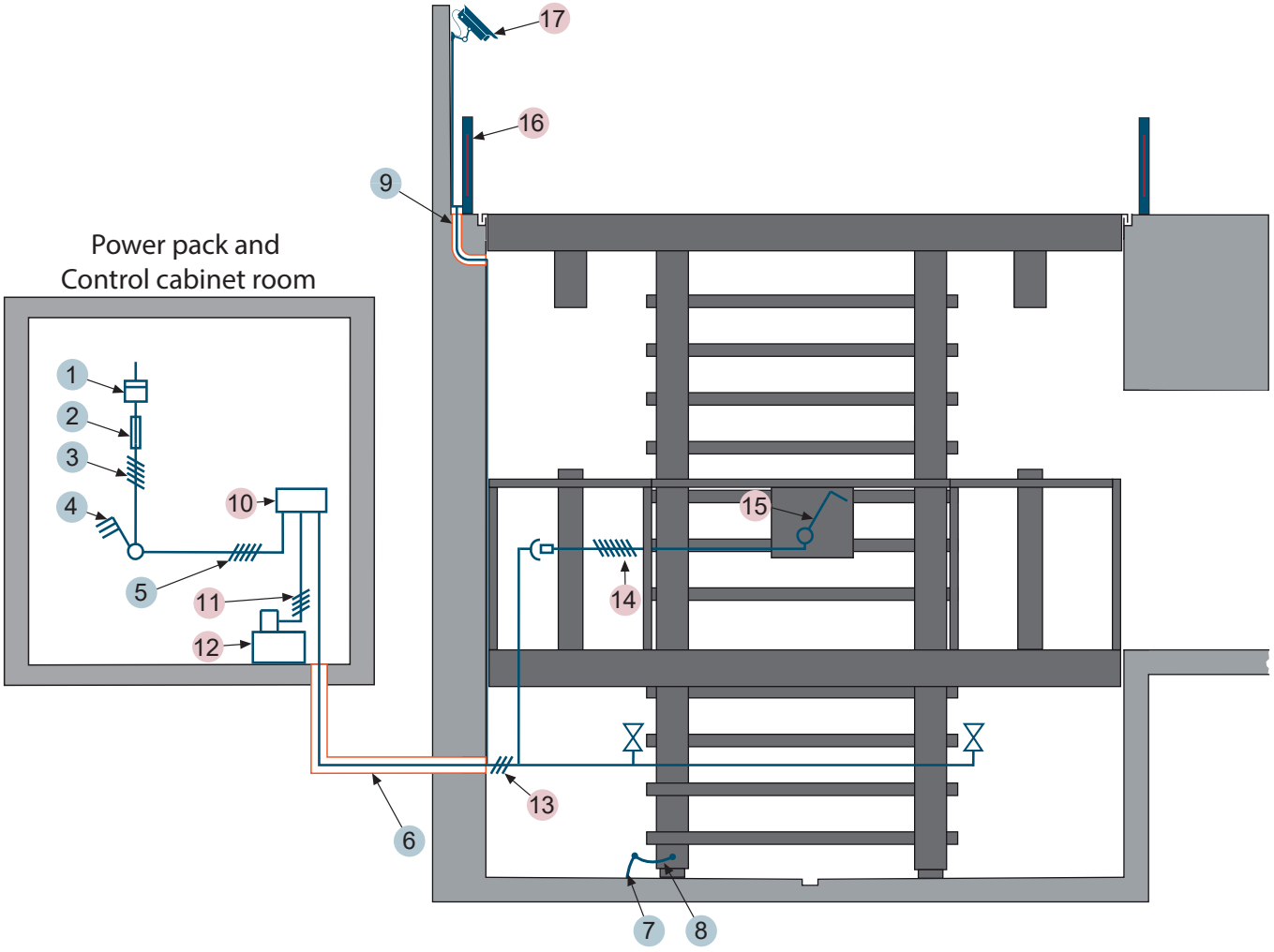

| Force (kN) | |
|---|---|
| F1 | F2 |
| +70 | -2 |

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## ▶ 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 or C) (Current - 17.7 A, **Starting current - 23 A**) | in the supply line |
| 3 | 1 | Supply line 5 x 10 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 10 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 | Supply line 5 x 10 mm² (3 PH + N + PE) with marked wire and protective conductor |
| 12 | Hydraulic unit - 9.2 kW, three phase current, 400 V, 50 Hz |
| 13 | Control line 5 x 2.5 mm² with marked wire and protective conductor |
| 14 | Control line 5 x 2.5 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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## ▶ Technical hint

### Usage area
The car lift is suitable for outdoor installation and for lifting heavy and large vehicles with a driver on board. It is a car lift compliant with the Machinery Directive, operated via a dead-man control. The car lift is suitable for both residential and office buildings and is intended for use by a defined and trained user group. Please 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 are recommended to be housed in a cabinet or separate room. (see **"Detail building construction – Hydraulic & Electric unit"**, page 4).

### CE certification
The systems offered comply with the EU 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
Environmental conditions for **swiss-park** systems:
- Temperature range -10 °C to +40 °C
- Relative humidity of 50% at a maximum outside temperature of +40 °C.

If lifting or lowering times are specified, these refer to an ambient temperature of +10 °C and a system installed immediately next to the hydraulic unit. At lower temperatures or with longer hydraulic lines, these times will increase.

### Maintenance & Protection
To prevent corrosion damage, please follow the separate cleaning and maintenance instructions (see "**Corrosion Protection**" sheet) and ensure good ventilation of your garage.

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# ▶ Facilities to be provided by the customer

## Safety barriers
During the car lift 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
Lighting, ventilation, fire extinguishing, and fire detection systems must comply with the relevant legal requirements.

## Ventilation
To ensure continuous air exchange, reduce humidity, prevent condensation, and minimize cabin moisture (from rain, snow, etc.), we recommend providing a suitable ventilation system in consultation with a specialist. This helps minimize the risk of corrosion and related malfunctions.

## Lighting
The client must comply with local regulations regarding lighting in the lift shaft.

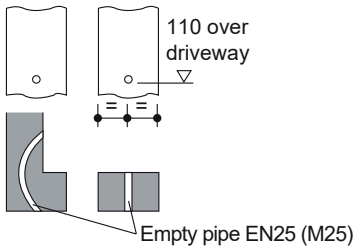
## Drainage
A pump or drain must be installed in the sump of the lift shaft to prevent standing water (component damage caused by standing water is no longer covered under warranty). The surrounding drainage channel must be connected to the sewer system. For environmental protection, we recommend installing oil and gasoline separators at the connections to the public wastewater system.

## Electrical supply of main switch / Grounding connection
The supply line to the main switch must be provided by the builder during installation. Functionality can be verified by our engineers on-site, or in collaboration with the electrician. If this is not possible during installation due to reasons attributable to the client, the client must hire a licensed electrician.

Grounding of the steel structure must be provided by the builder via a foundation earth electrode (maximum grounding distance 10 m) and equipotential bonding according to DIN EN 60204 (see "**Electrical Installation**," page 5).

## Control panel
Empty conduits and recesses for the operating element (see **"Electrical installation"**, page 5). Consultation with **Lödige Industries** is required when using folding doors.

**Control panel on plaster**




## Accessibility
If installation is carried out by **Lödige Industries**, the pit must be freely accessible by crane or truck for lowering the lift. For completion, the lift must also be accessible by car. It must be possible to install the sensor mounting columns , required for roof monitoring at a distance of 10–15 cm from the roof. The area around the pit must be compacted on site to allow for crane operation.

## Sealing
The sealing of the shaft as well as the drainage channel of the lift system shall be carried out on site by the builder. Please note: the sealing must be carried out with the utmost care. Any damage caused by water shall not fall under the responsibility of **Lödige Industries**.

## Additional Builder Responsibilities
- Construction of the shaft according to our specifications and in compliance with legal requirements; shaft lighting if required
- Measures to comply with water protection regulations
- Measures to comply with fire protection regulations and sound insulation according to DIN 4109
- Empty conduits for the unit according to data sheet and drawings
- Free (drivable and compacted) access to the pit with a crane or truck for lowering the lift; road closure if necessary
- Telephone line (PSTN) including connection to the control cabinet for emergency call activation; emergency call activation is mandatory. LAN connection without firewall
- Gates for shaft closure. Note: 230 V (single phase) and potential-free contact required. Refer to gate data sheet
- Up-to-date project photos if required
- Foundation grounding if necessary
- All permits and approvals
- Control line from main switch to unit
- Costs for final technical approval by an authorised expert
- Ongoing costs for emergency call activation and occupant rescue

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## ▶ Description - Car lift with driver on board

### General description

- **Lödige Industries** car lifts are suitable for lifting and lowering cars with the driver on board
- Dimensions according to the underlying pit, width, and height specifications
- Positioning of the car on the lifting platform via bilateral position sensors (to be set according to the operating manual)
- Operation via an operating element with dead-man control
- The operating element is usually mounted in front of the entrance or on the gate jamb outside
- For lifts with gate closure, special dimensions must be observed

### swiss-park system consisting of:

- 2 Side pillars or guide
- 2 / 4 Hydraulic cylinders
- 1 Lower platform
- 1 Upper platform or Roof
- 4 Support pillars for the roof
- 4 / 8 Nylon guide rollers
- Dowels, screws, fasteners, connecting elements etc.

### Platform consisting of:

- Checker plates
- Side fence
- Crossbeams
- Lateral beams
- Clamps
- 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)
- Up to 4 safety light curtains for edge control
- Junction box unit
- Control cabinet

### Hydraulic unit consisting of:

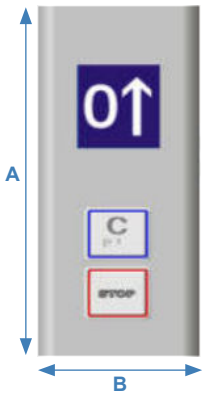
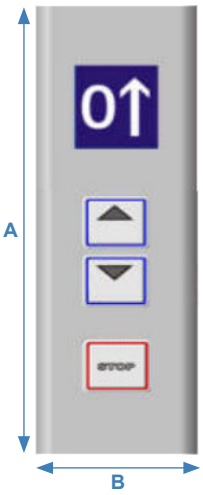
- Hydraulic oil tank
- Oil filling
- Internal gear pump
- Pump holder
- Coupling
- Three-phase motor (9.2 kW, 400 V, 50 Hz, low noise)
- Pressure gauge
- Pressure relief valve
- Hydraulic hoses (to reduce noise transmission to the hydraulic pipes)

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## ► Operating elements including dimensions (surface-mounted)

| MODEL A | MODEL B | MODEL C | MODEL D |
|---|---|---|---|
|  |  |  |  |
| A = 245 mm<br>B = 90 mm | A = 290 mm<br>B = 90 mm | A = 225 mm<br>B = 90 mm | A = 225 mm<br>B = 90 mm |

## We reserve the right to change these specifications without prior notice!

**Lödige Industries** reserves the right, in the course of technical progress, to use newer or alternative technologies, systems, processes, methods, or standards than those originally offered, provided that no disadvantage arises for the client.

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