TRANSLYFT®

# TECHNICAL SPECIFICATIONS

## VERTICAL LIFTING PLATFORM

# PH-300

**ET-560en**
Vers. 03.1
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# 1. General description

## 1.1. Application

Lifting platform intended for the vertical transport of persons with impaired mobility for operation between two defined landing levels in houses, commercial establishments and public buildings.

The lift does not require a pit, except for the protective bellows option, and is intended to be installed without a shaft closure.

The dimensions and rated load are appropriate for a passenger either in a wheelchair or standing up. They are appropriate for users of both manual and motorised and compact and maneuverable wheelchairs for indoor use and which may overcome some obstacles outdoors (classes A and B according to the European standard EN 12184), as well as for medium-sized scooters. The range of dimensions and the boarding layouts mean that wheelchairs can turn on the platform surface in the event of a 90º boarding layout.

## 1.2. Regulations

The lifting platform complies with the 2006/42/EC Machinery Directive and may, therefore, be commercialised in any country in the European Union. It is also made in accordance with the ISO 9386-1:2000 international standard.

## 1.3. Features

| | |
|---|---|
| **Rated load (Q)** | 300 kg |
| **Rated speed (s)** | 0.1 m/s |
| **Travel (R)** | Up to 1.5 metres |
| **Type of drive** | Direct acting hydraulic drive |
| **Electrical specifications** | 230 V ± 5% single-phase 50/60 Hz<br>Other single-phase voltages available.<br>The consumed power at full load may reach 900 W (3.9 A at 230 V). |

# 2. Detailed description

## 2.1. Drive and guiding

**Actuation**

Direct acting hydraulic drive and side push effect.

Cylinder with a safety valve and bottom oil feed. Depending on the travel of the lifting platform, this may be a simple cylinder or a double-acting telescopic cylinder, in both cases with a 35 mm diameter piston.

**Guide rails**

A column is supplied for guiding the lifting platform, formed of a welded structure made of UF50.100.4 profiles that are inter-braced, which means the carriage moves along roller guides that operate inside the profiles.

The lift has a guiding column supplied in a single section and with the cylinder and carriage already installed.

**Finish**

A welded and enclosed assembly painted with epoxy-polyester paint in colour RAL 7035.

## 2.2. Machine

Both the hydraulic power unit and the electric components are located inside a small and compact cabinet. This cabinet is intended to be installed adjacent to the lift guide, on either the lower or upper level (see lower-level installation details in section "3. Installation dimensions" and upper-level installation details in "3.8. Other cabinet locations").

As an option, the cabinet may be located in a position not adjacent to the guide and different to any of the above, at a maximum distance of 10 metres from the guide assembly (see "3.8. Other cabinet locations").

The cabinet is not designed to be installed outdoors.

**Hydraulic power unit**

Hydraulic power unit with an external motor and gear pump. There is a descent solenoid valve, a check valve and a safety valve integrated in the valve block, which also includes a pressure gauge with a protection valve. A manual descent push button is included in the block as means for emergency actuation to rescue passengers. A return filter and a shut-off valve are also included in the hydraulic power unit.

**Electric board**

The electrical control board is inside the cabinet, with the elements: main switch, motor circuit breaker, contactors, transformer, battery packs, and the board for the main control of the lifting platform.

**Finish**

Cabinet painted with epoxy-polyester paint in colour RAL 7035.

## 2.3. Platform

The vehicle has a platform sized appropriately for use by persons in a wheelchair and with a folding ramp along the access edge to the platform on the lower level.

There is antislip material on the surface of both the platform and the access ramp to make access to the platform easier.

There is a high-resistance plastic shell with an integrated handrail on the upper side of the side protection of the platform, on the side of the guide assembly.

**Fixed protection barriers**

On the non-access edge of the platform, there are fixed protection barriers to stop the platform from falling. They involve a roll-off guard and a tubular rail with two pipes situated at a height of 300 mm and 1,100 mm from the platform floor.

The protection rail is not included with lifts with a travel equal to or less than 500 mm nor when there is a surface adjacent to this side which is vertical, continuous and solid, which covers the whole of the platform size and which is situated at a distance of 20 mm from the platform floor.

Fixed glazed protection barriers optional.

**Mobile protection barriers**

There are two mobile protection barriers on the access edge of the platform on the lower level. These involve two arms, situated at 300 mm and 1,100 mm from the platform floor, which are motorised, have a synchronised movement and which operate fully automatically during access to the platform.

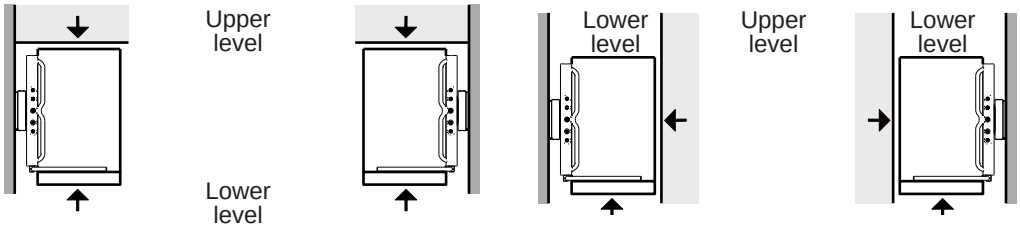
Movable barrier arms are not included with lifts with travel distances of 500 mm or less.

**Boarding layout**

There are different boarding layouts, depending both on the available space to access the platform on the upper level and the position of the guide with respect to the access to the platform.

In 180º boarding layouts, access to the upper level is in a parallel direction to the wall on which the guide is fastened, while in 90º boarding layouts access to the platform on the upper level is in a perpendicular direction to the wall on which the guide is fastened.

See the recommended minimum access dimensions in each layout in section "3. Installation dimensions".




Boarding at 180º  Boarding at 90º

Possibility of 90º boarding layouts with lower-level access to the platform in the direction perpendicular to the wall on which the guide is fastened and upper-level acces in the direction parallel to the wall on which the guide is fastened (consult).

**Platform dimensions**

Depending on the boarding layout. See dimensions in section "3. Installation dimensions".

| Layout | Width (mm) | Depth (mm) |
|---|---|---|
| 180º | 800(1) | 1250(2) |
| 90º | 900(1) | |

(1)As an option, smaller platform widths are available for installations with very small-sized shafts. These small platform widths may not be compatible with the use of some wheelchair models.
(2) As an option, platform available that is 1400 mm in depth by 900 mm in width with 180º boarding.

**Finish**

Enclosures, platform and access ramp painted with epoxy-polyester paint in colour RAL 7035.

Mobile and fixed protection barriers painted with epoxy-polyester paint in colour RAL 7005.

Black antislip strips in platform and access ramp.

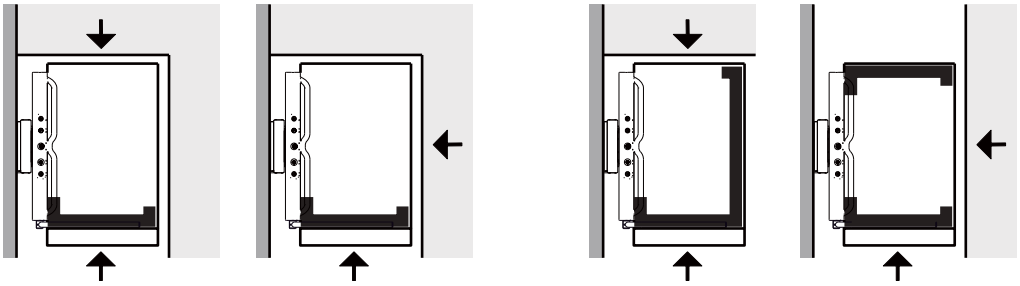
Upper plastic shell in colour RAL 7005.

**Protective bellows**

Optionally, protective bellows can be supplied for the lower part of the vehicle, made of waterproof and fireproof PVC-coated polyester fabric and rigid PVC reinforcements. The role of the bellows is to provide a visual barrier that delimits the gap that exists below the platform. The bellows are not a safety element, and protection from the risk of being crushed is still the job of the lower floor tray (see "2.8. Safety elements").

The bellows are only available on the sides where they are necessary so that users cannot access the gap that exists below the platform, and two layout options can be selected:

- Bellows on one side, corresponding to lower landing. Appropriate when there is a wall nearby on the side with no landing.
- Bellows on two sides, on the lower landing side and on the side with no landing. Appropriate when there is a wall nearby on the side with no landing.




One side Two sides

## 2.4. Top landing gate

An upper-level door is included to prevent against falling from the upper level in lifts with a travel of more than 500 mm.

A single-leaf semi-automatic hinged door without a lintel and a height of 1,100 mm.

There is an electrically actuated lock in compliance with the EN 81 standard series, with a safety contact to control the locked position and with an emergency unlocking sequence using a standard triangular key.

With an electric safety contact to control the locked position of the door.

**Automatic option**

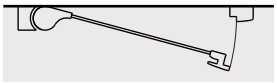
Automatic actuation using a direct-current gear motor controlled by an electronic circuit with a microcontroller and operation completely integrated with the lift manoeuvre. The automation system is integrated in the inside of the post on the hinged side of the door.

**Dimensions**

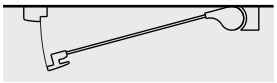
Height (H): 1100 mm

Clear opening (FP): 800 mm (standard for the 180º boarding layout)
900 mm (standard for the 90º boarding layout)

**Hand**



Left hand



Right hand

**Finish**

Glass sheet.

Posts and aluminium handle painted with epoxy-polyester paint in grey colour RAL 7035.

## 2.5. Options

**Colour**

Enclosures of the vehicle, platform, access ramp, welded structure and enclosures of the guide, posts and handle of the upper-level door painted in other colours in the RAL chart.

**Outdoor installation**

High-corrosion resistant finish and waterproof electrical installation for outdoor installations. Corrosion protection via cataphoresis treatment on the welded structures of the guide and vehicle, as well as on the protection barrier arms and rail and finish painted with polyester paint. The cabinet is not designed to be installed outdoors.

## 2.6. Installation

**Location**

The guiding column is intended to be fastened to the floor on the lower level and to one of the side walls of the shaft.

On the side wall, the guide is intended to be fastened at the height of the upper level wrought iron and at the top end of the guide. Alternatively, when there are no structural elements to which to fasten the top end of the guide, double fastening at the height of the upper level wrought iron is provided for. All of the material needed to fasten the guide assembly using chemical anchorages is supplied.

The reaction forces transmitted to the wall on which the guide is fastened are specified in the assembly instructions.

The wall opposite the boarding edge on the upper level must have a vertical, continuous and solid surface without projections along the whole size of the platform. The side wall to which the guiding column is fastened must also be vertical, continuous, solid and without projections.

If there are elements on the non-boarding platform edge, their surface characteristics depend on their distance from the platform.

See more details on surfaces and surface requirements in section "3. Installation dimensions".

**Electrical and hydraulic**

The hydraulic installation is supplied completely pre-assembled and requires only a connection between the hydraulic power unit in the cabinet and the guide. Connection is via metal double-mesh flexible hydraulic hosing, individually tested for pressure together with the corresponding connectors.

The electrical installation is also supplied completely pre-assembled, with the wiring in the vehicle and the guide assembly fully installed; only the connection between the vehicle and the guide assembly is required (with plug-in connectors), along with the connection to the guide assembly, the landing push-button panels and, where applicable, the upper-level door to the cabinet.

When the machine cabinet is installed in the intended position adjacent to the guide assembly, both on the lower and upper levels, a distribution channel is supplied to accommodate both the hydraulic piping and the connection wires between the guide assembly and the cabinet, so that they remain hidden.

In the case of landing push-button panels to assemble on the surface (see complete description in section "2.7. Control"), distribution channels are supplied to accommodate the connection wires between the push-button panels and the cabinet, so that they remain hidden, reducing the need for preparatory work.

**Top landing gate**

The door is intended to be fastened on the floor of the upper level to make a uniform and continuous surface towards the inside of the lift shaft on the boarding edge (see "3. Installation dimensions").

All the necessary material is supplied to fasten it on the floor, and it requires no side fastening to other elements. Two types of fastening are available as optional:

- Directly to the floor. This type of fastening requires no building preparation. A 6mm thick panel is used that is attached to the floor using screws and sleeves for chemical studs. A 1mm stainless steel plate is mounted on this panel as trim, which hides any imperfections of the visible edge of the floor, with a small ramp to bridge the difference in level between the plate and the panel. See "3.6. Top landing gate".
- Using a panel embedded below the floor and attached to the structural concrete. This type of fastening requires building preparation, but leaves no differences in level in the transitory area because no plate is used on the floor. See "3.6. Top landing gate".

**Protective bellows**

This option requires a pit to house the protective bellows when they are fully folded with the platform at the lower landing level. The minimum depth of the pit depends on the travel of the platform (see "3.7. Pit for protective bellows (optional)").

All the material needed to fasten the bellows to the floor using screws and nylon expansion studs is supplied.

## 2.7. Control

**Lift control panel**

Integrated in the upper shell and situated at a height suitable for wheelchair users. The following elements are included:

- Key enabling switch for restriction of use.
- Independent ascent and descent push buttons, with light indication of the actuation of the buttons.
- Emergency stop push button with light indication of the actuation of the button.
- Acoustic and light overload indicator.

**Landing push-button panels**

There are two models of push-button panels: to recess in the wall at each landing level (standard) or with a box for surface assembly (as an option). For lifts with an upper-level door, the upper-level push-button panel is integrated in one of the door posts.

Recessed push-button panels with control elements assembled on a stainless steel sheet.

Surface-mounted push-button panels with control elements assembled on a connection box.

As an option, wireless surface landing push-button panels for a cable-free installation.

The following elements are included in the push-button panels.

- Key enabling switch for restriction of use.
- Call push button for the lifting platform, with light indication of the actuation of the button.

**Manoeuvre characteristics**

Control based on integrated electronics with microcontroller with the following main characteristics:

- Movement of the platform with hold-to-run control, both from the platform push buttons and from the landing push-button panels.
- Priority of the platform commands over the landing push-button panel commands.
- Landing detection with final limit switches.
- Automatic control of the positioning of the platform boarding ramp and the protection barrier arms, where applicable, both from the landing push-button panels and from the vehicle commands.
- Movement of the vehicle is subject to the horizontal position of the protection barrier arms and to the lifted position of the access ramp.
- Relevelling on the upper level with the door open.

## 2.8. Safety elements

Among all the safety and protection measures included in the lifting platform, the following may be highlighted:

**General**

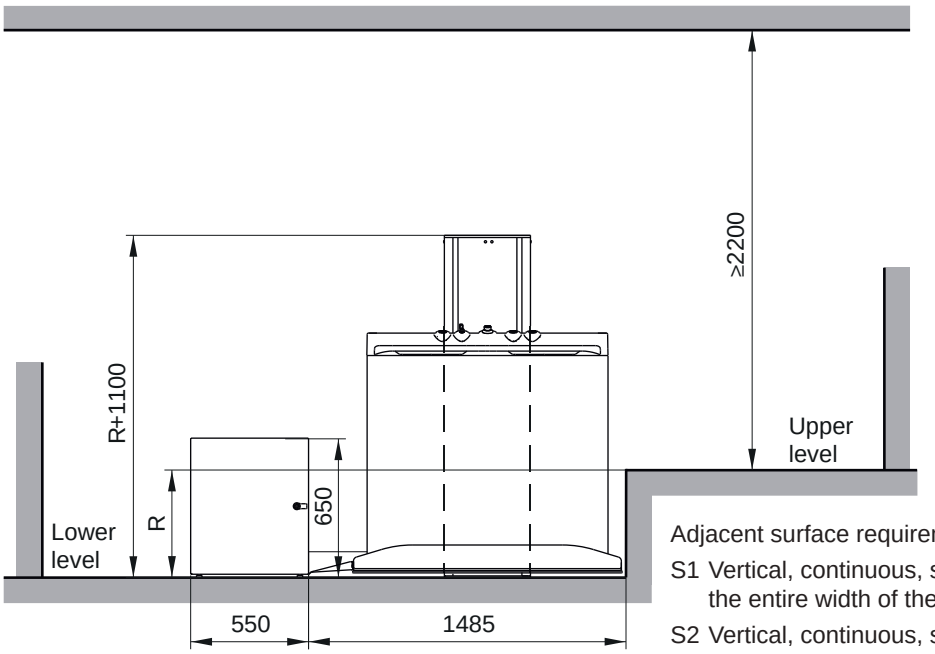
- Safety valve as a means of protection against free fall in case of rupture of the piping.
- Mechanical locking of the protection barrier arms and access ramp with electric control.
- On lifting platforms with an upper-level door, electric control of both the lock and locking of the electric lock.
- Relevelling system on the upper level even with the upper-level door open as a safety measure against the lift drifting.
- Upper limit switch.
- Control of maximum motor feed time and the descent solenoid valve.

**Use**

- Tray under the platform floor as an obstacle detection device. In the event of detecting an obstacle, it allows the vehicle to move upwards.
- Load control system with pressure transducer.
- Emergency stop button in the vehicle.
- Battery-operated descent operation to the lower floor with automatic opening of the protection barrier arms and access ramp ordered from the vehicle, in case of loss of power supply.
- Manual lowering button in the hydraulic power unit for rescue in the event of failure.
- Manual opening of the protection barrier arms and the access ramp with a triangular safety unlocking key for rescue, in case of breakdown.

## 3. Installation dimensions

### 3.1. Travel up to 500 mm, boarding at 180º



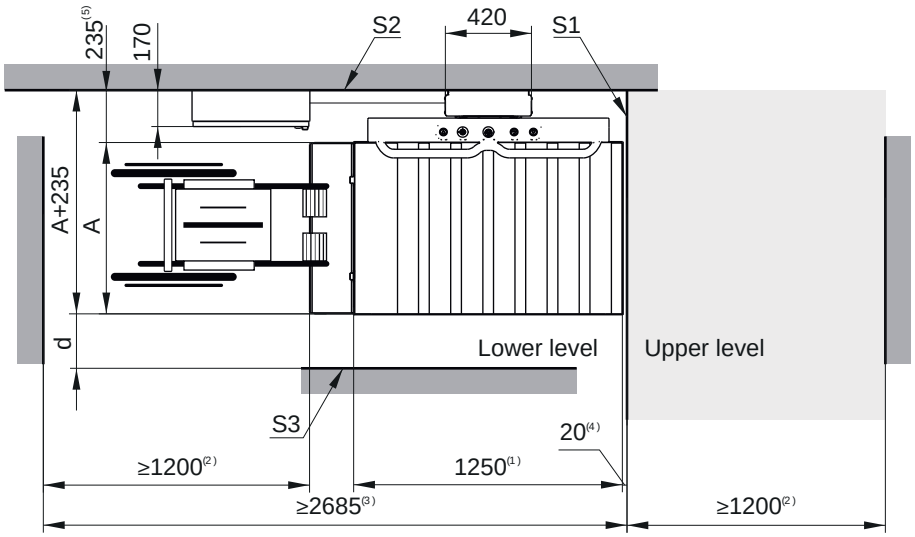

Adjacent surface requirements (see section 3.5):

S1 Vertical, continuous, solid and without projections; over the entire width of the platform

S2 Vertical, continuous, solid and without projections

S3 According to the value of the distance to the platform (d):

| d (mm) | Surface |
|---|---|
| ≥20 | Vertical, continuous, solid and without projections |
| ≥120 | Vertical, continuous and solid |
| ≥400 | No specific requirements |




R Travel

A Width of the platform (standard 800 mm). Reduced width available as an option

d Distance between platform and adjacent surface on the non-boarding edge

(1) Depth of the platform

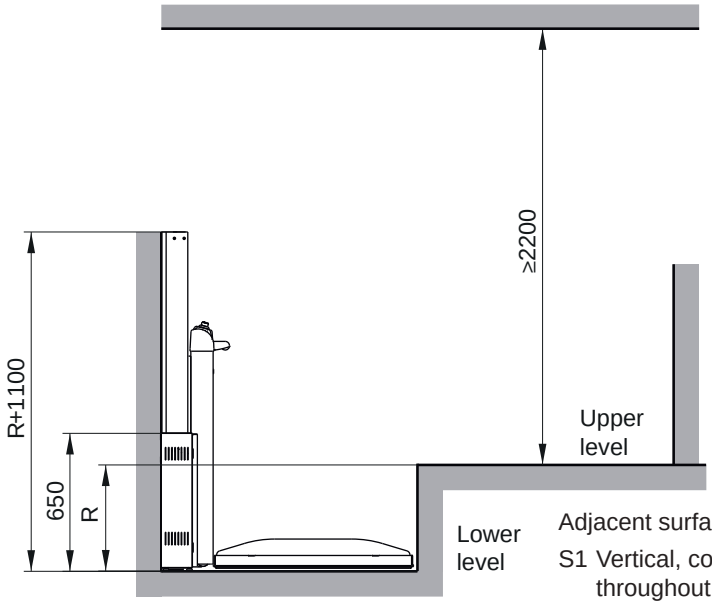
(2) Minimum space for use with a wheelchair (recommended 1,500 mm)

(3) Total minimum space on lower level for use with a wheelchair (recommended 2,985 mm)

(4) Distance between platform and boarding wall on the upper level

(5) Distance between platform and fastening wall

## 3.2. Travel up to 500 mm, boarding at 90º



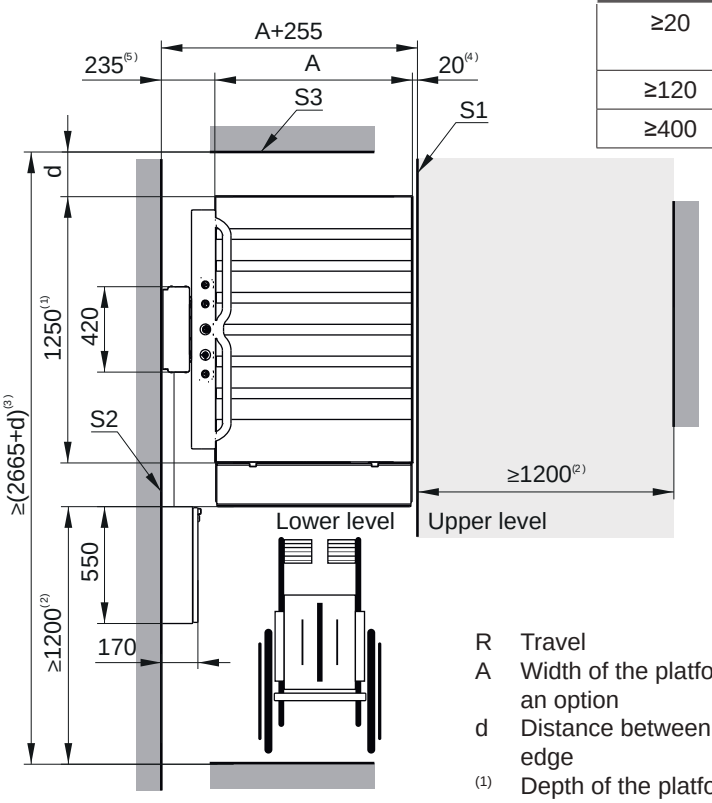

Adjacent surface requirements (see section 3.5):

S1 Vertical, continuous, solid and without projections; throughout the length of the platform

S2 Vertical, continuous, solid and without projections

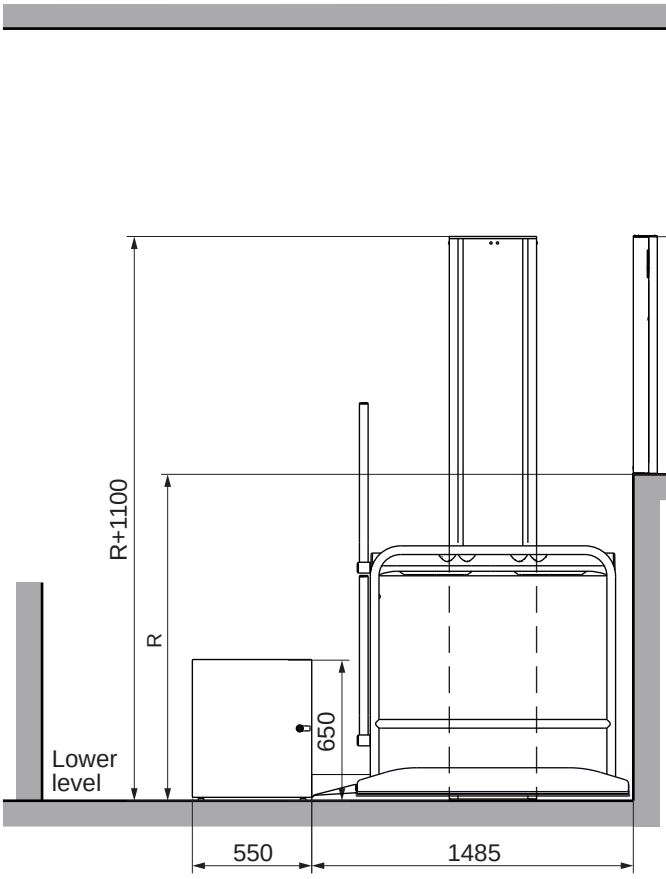
S3 According to the value of the distance to the platform (d):

| d (mm) | Surface |
|---|---|
| ≥20 | Vertical, continuous, solid and without projections |
| ≥120 | Vertical, continuous and solid |
| ≥400 | No specific requirements |




R Travel
A Width of the platform (standard 900 mm). Reduced width available as an option
d Distance between platform and adjacent surface on the non-boarding edge
(1) Depth of the platform
(2) Minimum space for use with a wheelchair (recommended 1,500 mm)
(3) Total minimum space on lower level for use with a wheelchair (recommended 2,965+d mm)
(4) Distance between platform and boarding wall on the upper level
(5) Distance between platform and fastening wall

## 3.3. Travel over 500 mm, boarding at 180º




Adjacent surface requirements (see section 3.5):

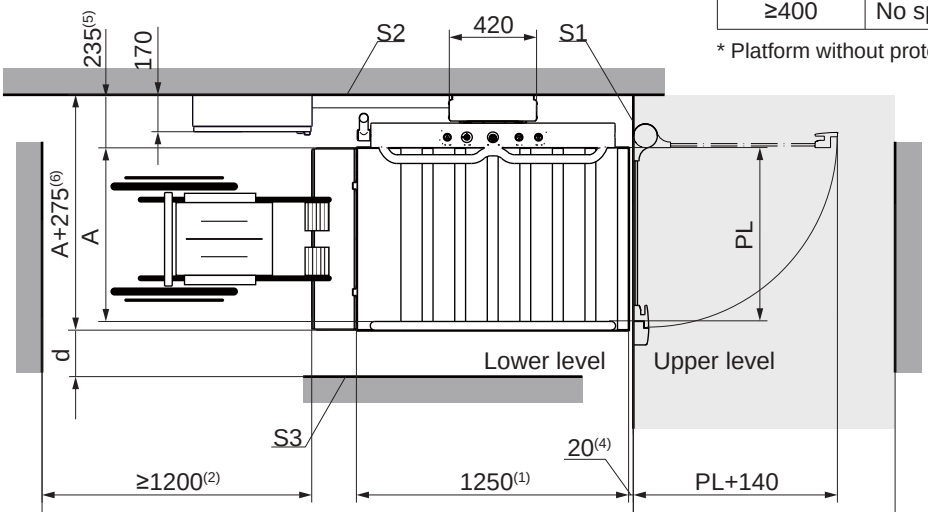
S1 Vertical, continuous, solid and without projections; over the entire width of the platform

S2 Vertical, continuous, solid and without projections

S3 According to the value of the distance to the platform (d):

| d (mm) | Surface |
|---|---|
| 20 | Vertical, continuous, solid and without projections; throughout the dimension of the platform* |
| ≥80 | Vertical, continuous, solid and without projections |
| ≥120 | Vertical, continuous and solid |
| ≥400 | No specific requirements |

* Platform without protection rail.




R Travel

A Width of the platform (standard 800 mm). Reduced width available as an option

PL Clear opening (standard 800 mm)

d Distance between platform and adjacent surface on the non-boarding edge

(1) Depth of the platform

(2) Minimum space for use with a wheelchair (recommended 1,500 mm)

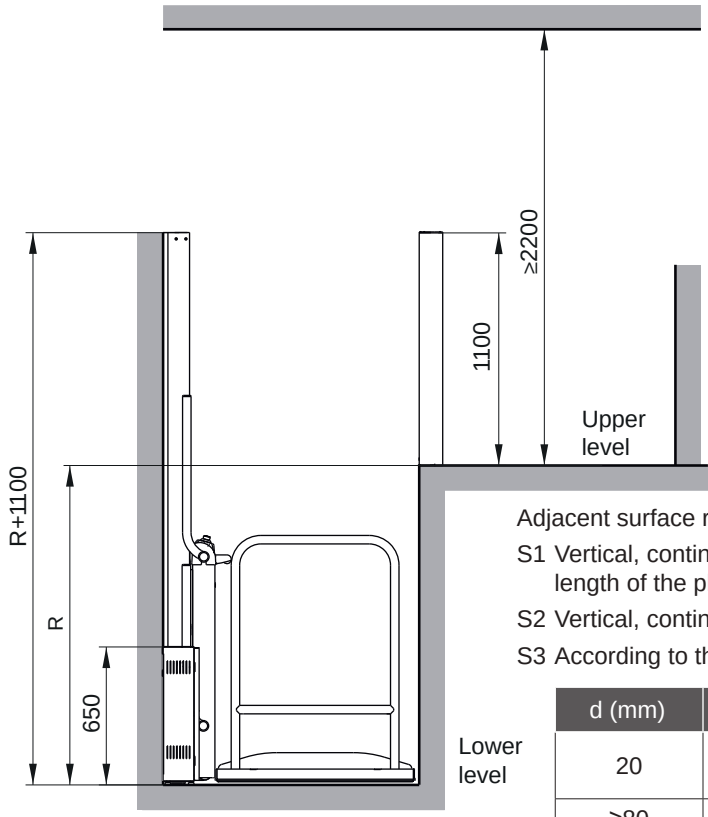
(3) Total minimum space on lower level for use with a wheelchair (recommended 2,985 mm)

(4) Distance between platform and boarding wall on the upper level

(5) Distance between platform and fastening wall

(6) Distance between fastening wall and end of the platform (A+235 for platform with no rail)

## 3.4. Travel over 500 mm, boarding at 90º




Adjacent surface requirements (see section 3.5):

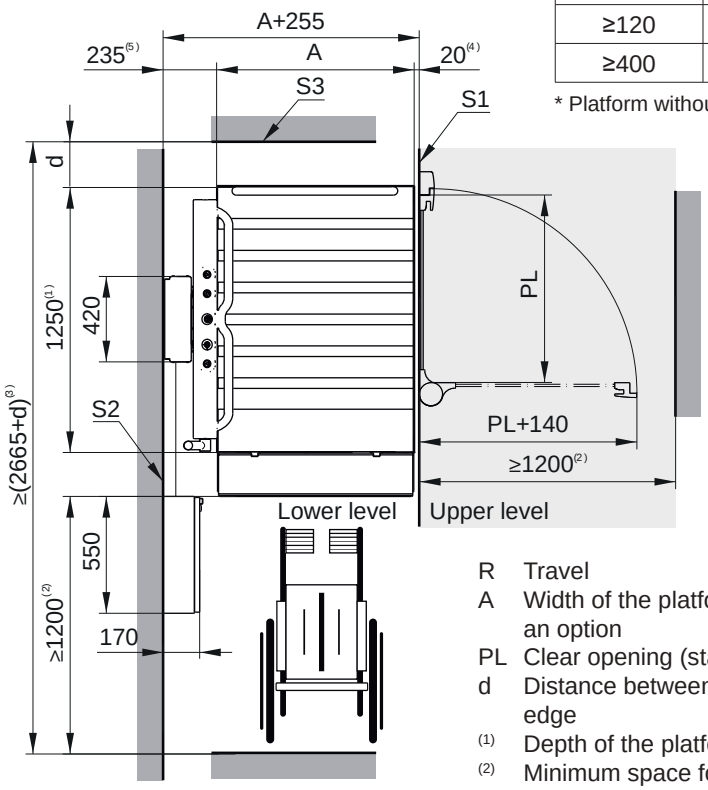
S1 Vertical, continuous, solid and without projections; throughout the length of the platform

S2 Vertical, continuous, solid and without projections

S3 According to the value of the distance to the platform (d):

| d (mm) | Surface |
|---|---|
| 20 | Vertical, continuous, solid and without projections; throughout the dimension of the platform* |
| ≥80 | Vertical, continuous, solid and without projections |
| ≥120 | Vertical, continuous and solid |
| ≥400 | No specific requirements |

* Platform without protection rail.

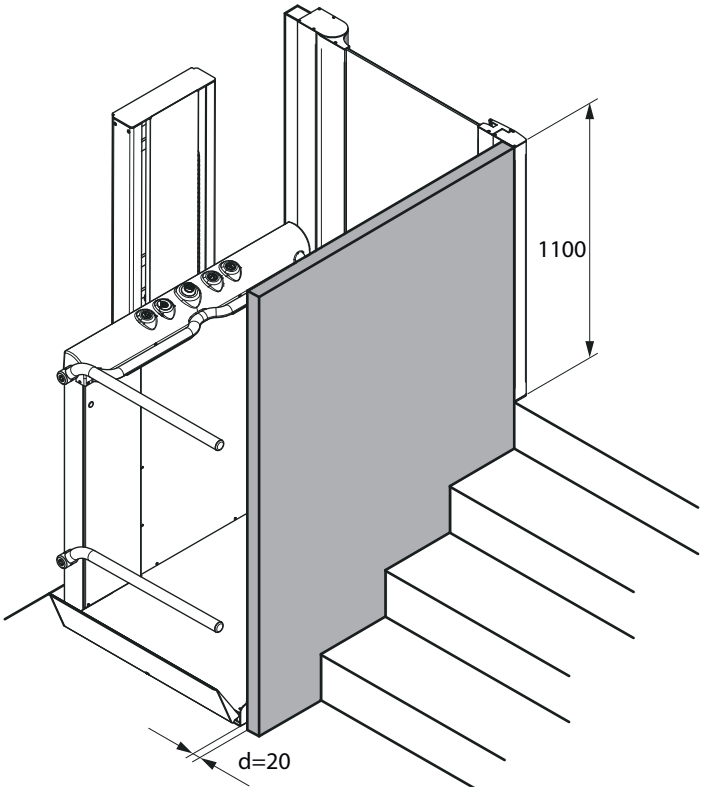


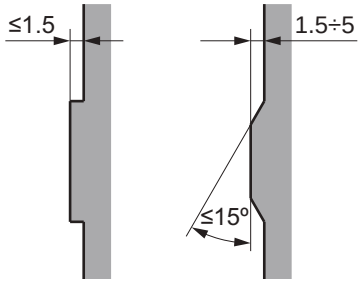

R Travel
A Width of the platform (standard 900 mm). Reduced width available as an option
PL Clear opening (standard 900 mm)
d Distance between platform and adjacent surface on the non-boarding edge
(1) Depth of the platform
(2) Minimum space for use with a wheelchair (recommended 1,500 mm)
(3) Total minimum space on lower level for use with a wheelchair (recommended 2,965+d mm)
(4) Distance between platform and boarding wall on the upper level
(5) Distance between platform and fastening wall

## 3.5. Adjacent surface requirements

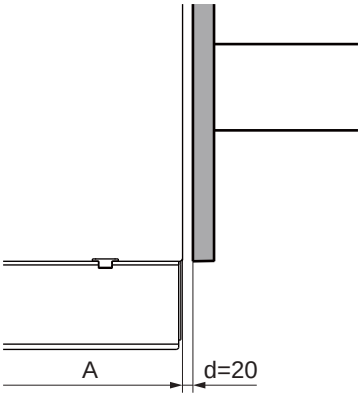
Several examples of the most usual cases are shown below, with a 180º boarding layout and a ladder on the side with no landings. For other cases, the requirements of the examples given can be extrapolated.

**Vertical, continuous and solid, over the entire platform, for R>500 (d=20)**

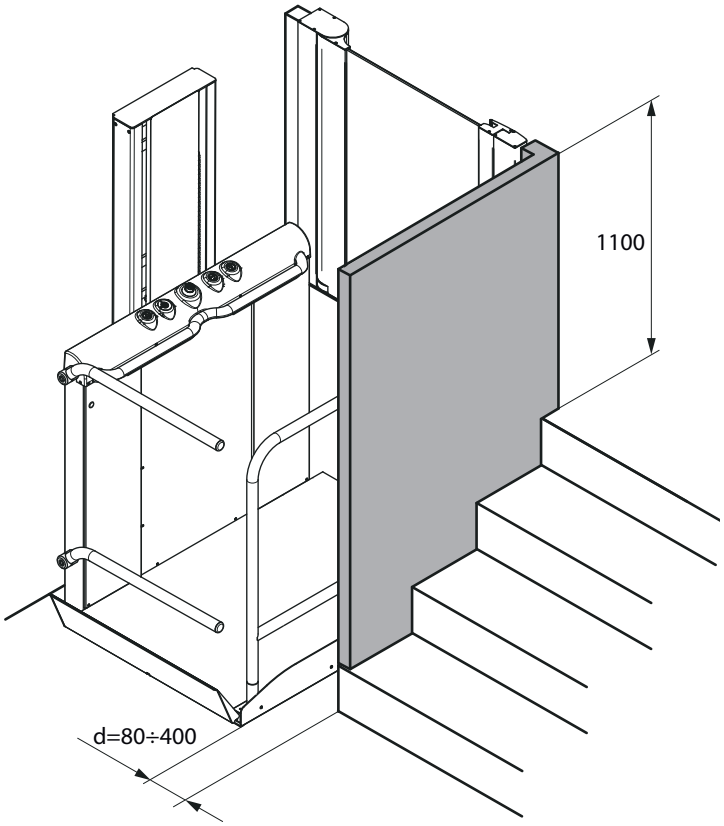


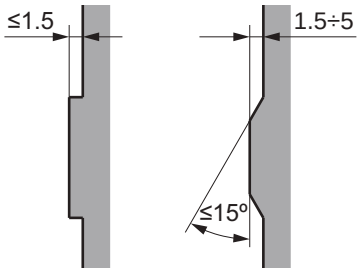




Permitted projection dimensions for wall without projections

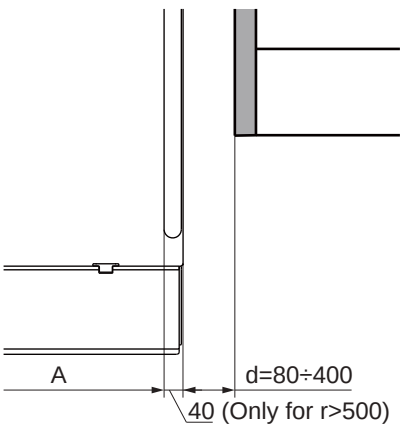



**Vertical, continuous and solid, for R>500 (d= 80÷400)**

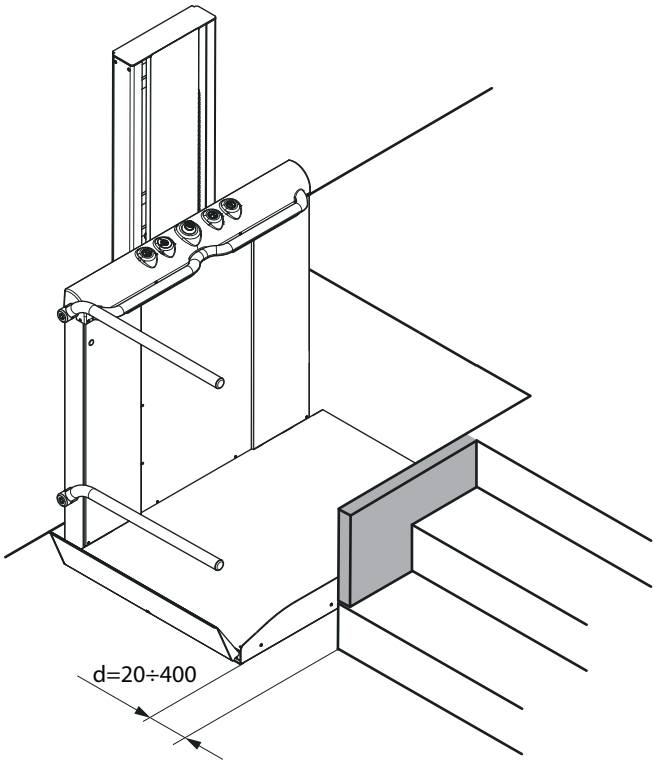


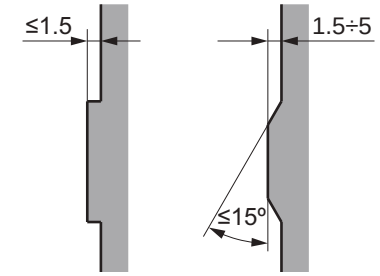




Permitted projection dimensions for wall without projections (for d=80÷120 only)

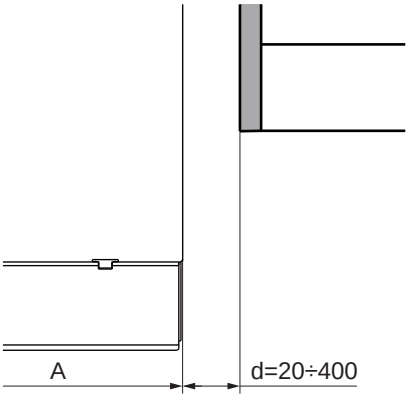


### Vertical, continuous and solid, for R≤ 500 (d= 20÷400)

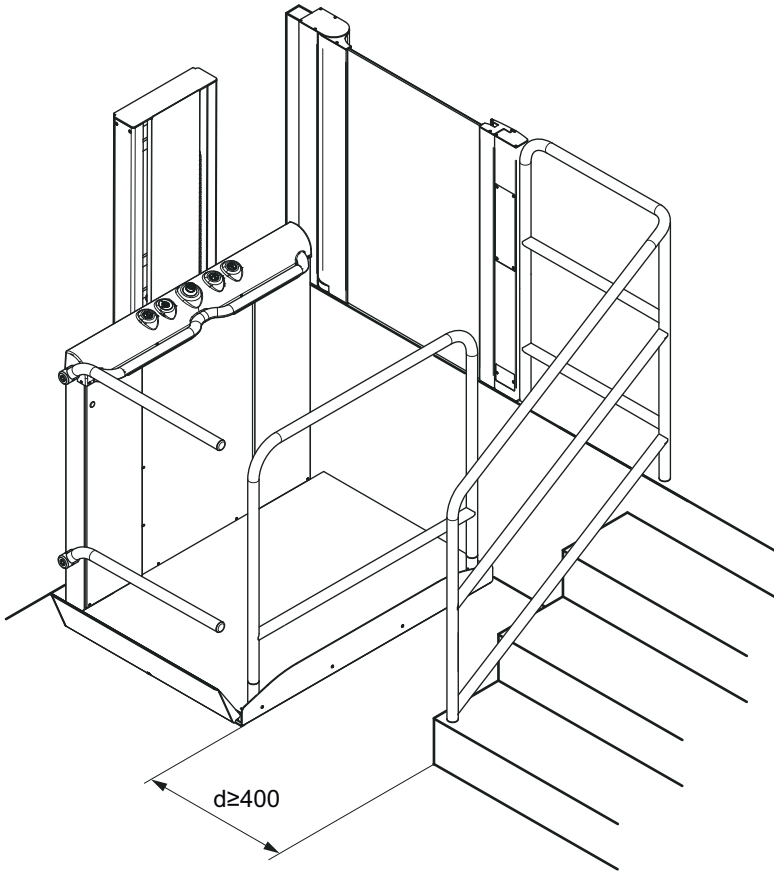


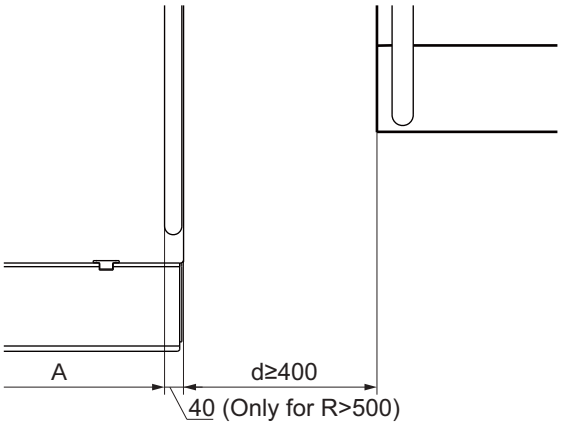




Permitted projection dimensions
for wall without projections
(for d=20÷120 only)



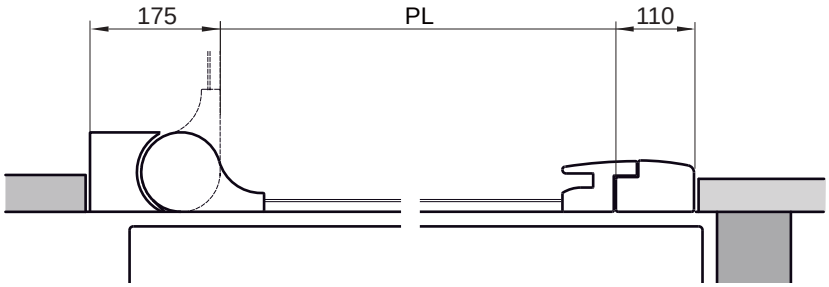

### No specific requirements (d≥400)



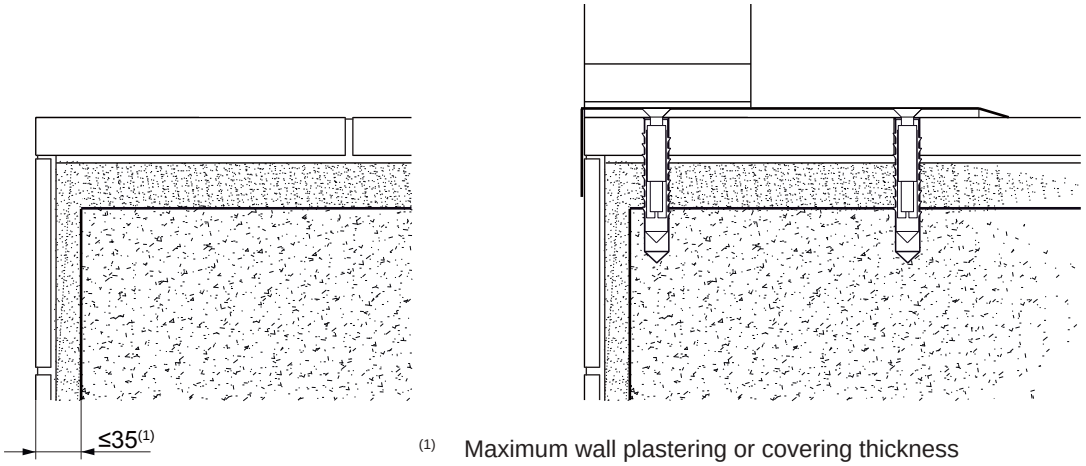



## 3.6. Top landing gate

### Door size



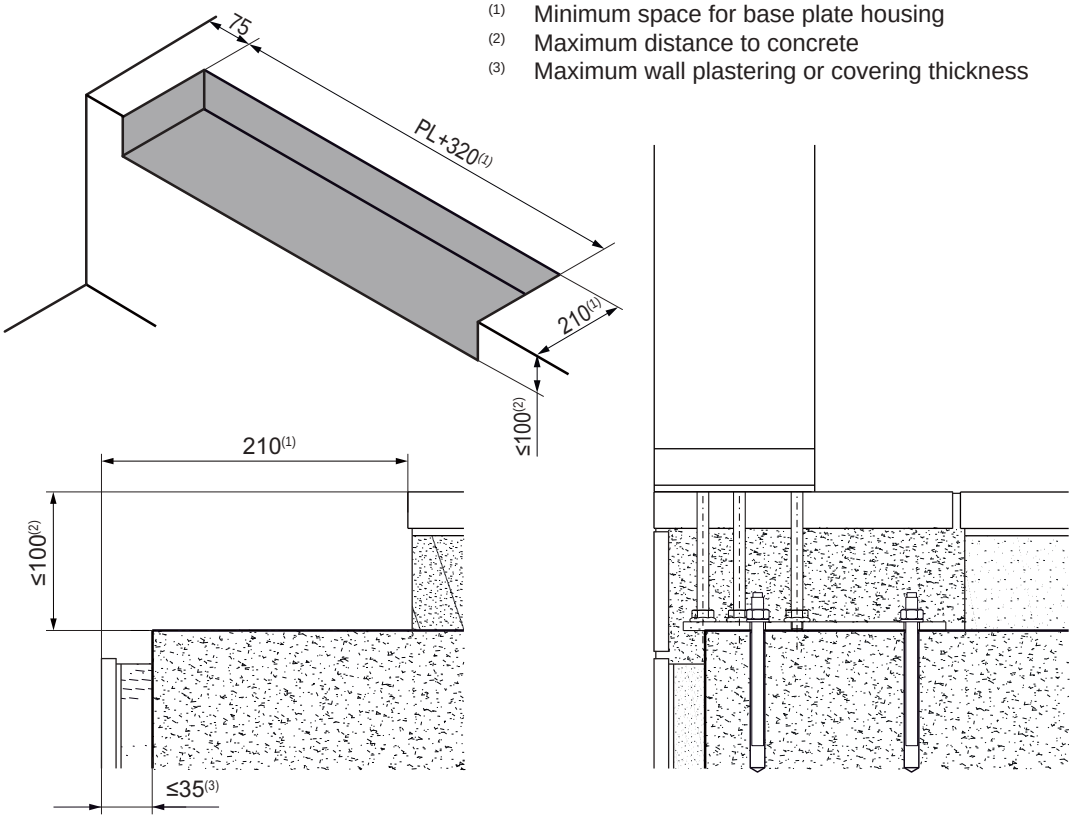

### Direct attachment to the floor




(1) Maximum wall plastering or covering thickness

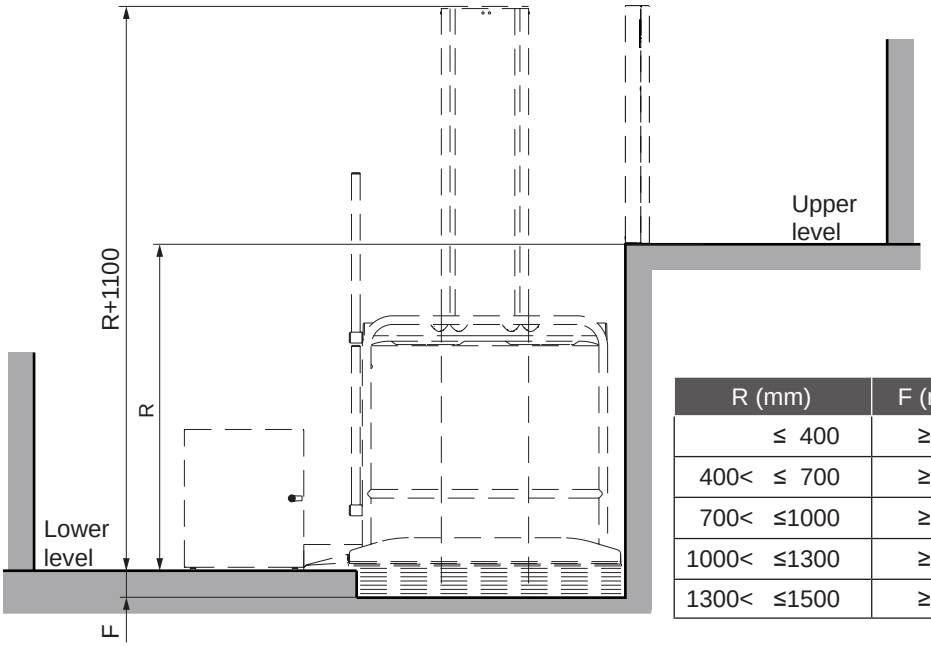
### Attachment using a built-in plate

(1) Minimum space for base plate housing
(2) Maximum distance to concrete
(3) Maximum wall plastering or covering thickness



## 3.7. Pit for protective bellows (optional)

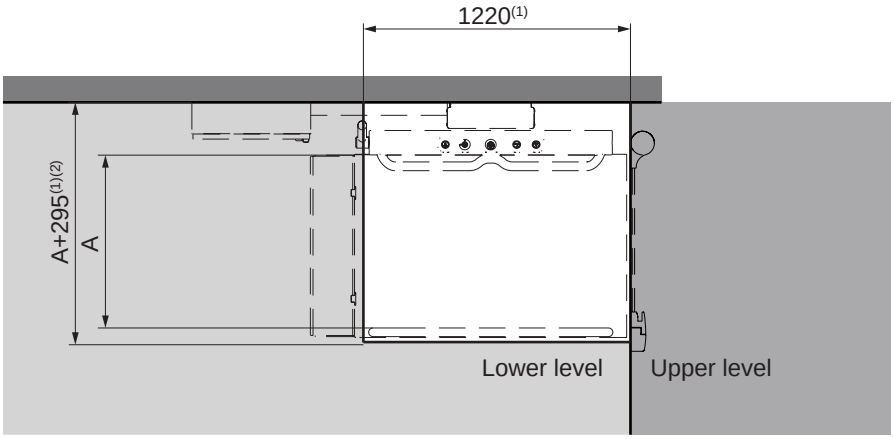
**Front view**




| R (mm) | F (mm) |
|---|---|
| ≤ 400 | ≥30 |
| 400< ≤ 700 | ≥45 |
| 700< ≤1000 | ≥60 |
| 1000< ≤1300 | ≥75 |
| 1300< ≤1500 | ≥90 |

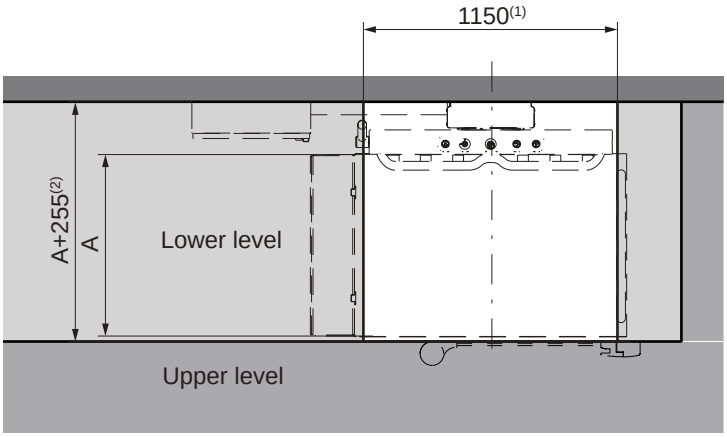
R Travel
F Pit

**Floor entrance at 180º**




A Platform width
(1) Pit size
(2) A+255 for platform with no rail

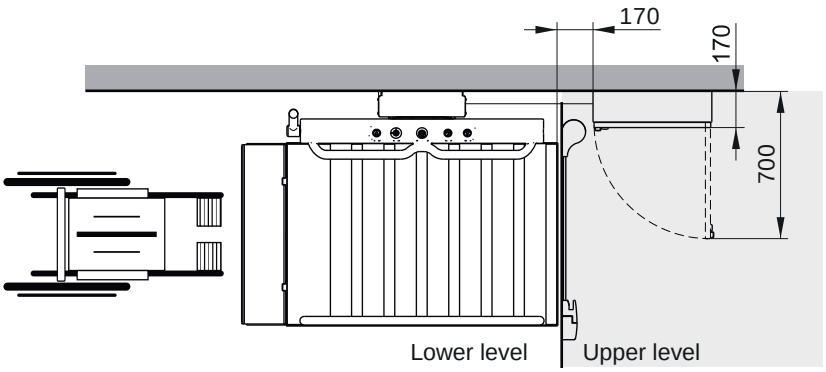
**Floor entrance at 90º**



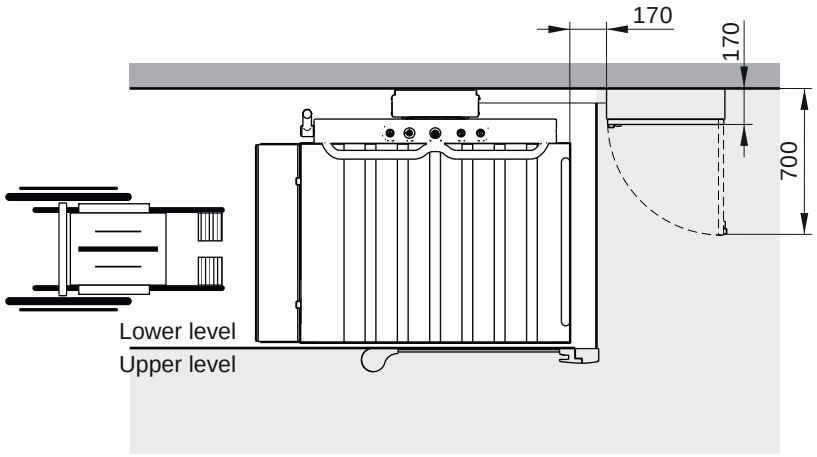

A Platform width
(1) Pit size

## 3.8. Other cabinet locations

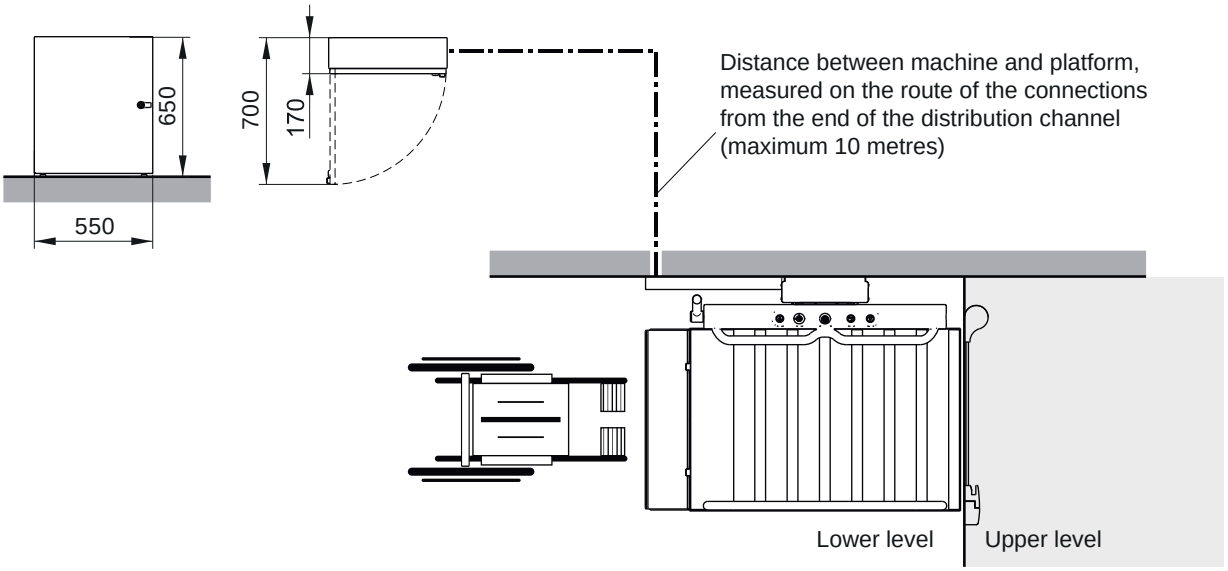
### On the upper level, boarding at 180º




### On the upper level, boarding at 90º




### Location not adjacent to the guide



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