

The Omega Platform Lift

This information manual aims at providing a quick overview over the diverse application possibilities that the Omega platform lift provides. In over 4000 installations worldwide, the Omega has proven to be the most versatile and one of the most robust platform stairlift on the market.



The main features described below make the Omega an outstanding product on the market:

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1 General technical characteristics:

Voltage for power supply	1 x 230 V
Position of motor box	Only on the upper end of railway
Position of electrical control	Inside the motor box for indoor standard drive and all big drives
	Outside the drive box for outdoor standard drive (in separate box)
Power consumption of drive	Up to 1,1 kW for new standard drive
	Up to 2,2 kW for big drive
Speed	from 0,06 – 0,15m/sec
Temperature range	+45°C down to -30°C
Rails	Maximum gradient 65°
	Maximum length of straight rails 85m
	Maximum curves for curves rails 10x180°
	Inside and outside curves are possible
Surface protection of rails	Powder coated for indoor
	Hot galvanized for outdoor
	Stainless steel grade 306 or 316
Colour	All RAL colours possible (RAL 7035 is standard colour)
Platform size	Platform width (min-max): 600 - 900mm
	Platform length (min-max): 700 - 1300mm
Loading capacity	Standard 225 kg, optional 300kg
Platform controls	Handset with up/down, alarm and stop button for automatic platform
	Handset with key, up/down, alarm & stop button for manual platform
	Keyed radio controlled long range hall calls
	Joystick with key and stop button on platform (optional)
Security features	Contact under-platform contact plate and safety ramp
	Pressure sensitive frame on side of platform sidewall (optional)
	Audio alarm device
	Audio signal for moving platform
	Visual signal for moving platform (optional)
	Overload device
	Overspeed governor on lower end of rail
	Auto fold (folds PF after a certain time if left unattended)
	Emergency manual lowering and folding
Further options:	Folding seat
	Side access (side load)
	Integrated Pedestrian Handrails
	UPS auxiliary power system
	Keyed platform operation for automatic platforms
	Manual folding of platform instead of automatic
	Outdoor weatherproofing cover

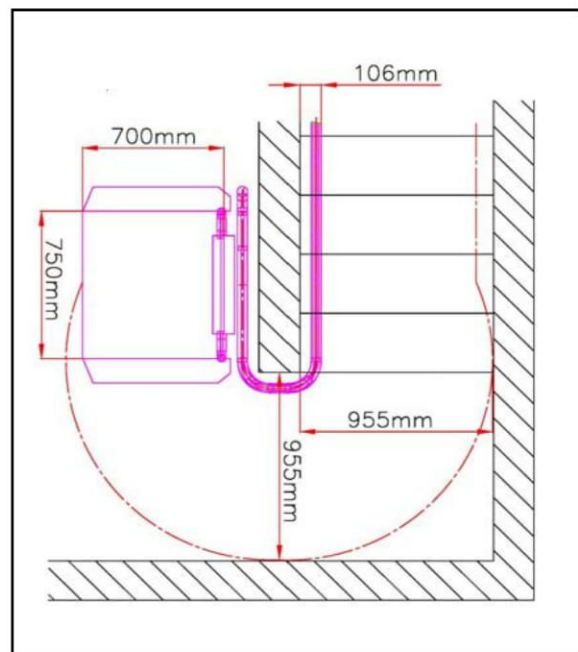
2 Space saving platform design

In many cases the installation of a platform lift is restricted by the width of the staircase as well as by the space available for parking. The Omega can be fitted into staircases where other platform lift products cannot be installed due to space restrictions. A couple of examples are provided hereafter.

Staircase width

The Omega platform can be designed in any platform size or shape so that always the maximum platform size can be achieved for a given staircase. For example, a platform size of 700x750 mm can be installed with a staircase width of just 955mm, if the rail is wall mounted. Please see the drawing and table below.

Platform size	Directly wall mounted	Special posts (40x80mm)	Standard posts (60x60mm)
640x700mm	881mm	921mm	941mm
650x750mm	918mm	958mm	978mm
700x750mm	955mm	995mm	1015mm
700x850mm	988mm	1028mm	1048mm
700x900mm	995mm	1035mm	1055mm
720x850mm	999mm	1039mm	1059mm
750x850mm	1031mm	1071mm	1091mm
800x900mm	1079mm	1119mm	1139mm
800x1000mm	1109mm	1149mm	1169mm
900x1000mm	1191mm	1231mm	1251mm
800x1250mm	1166mm	1206mm	1226mm



Pillars can be placed on the steps or on the string of the staircase. If located on the string, the clear width of the staircase can be increased depending on the spacer used for the fixing. Please consult Lehner Liftechnik to assess the possibilities in such a case.



Bulkheads

The small dimensions of the carriage together with steep rail designs and tight turning radii, allow an Omega installation in almost any staircase. Rail gradients up to 60° have been realized.

As can be seen in the example below, the compact platform sidewall and the steep rail design can solve problems with low bulkheads and small lower parking spaces.

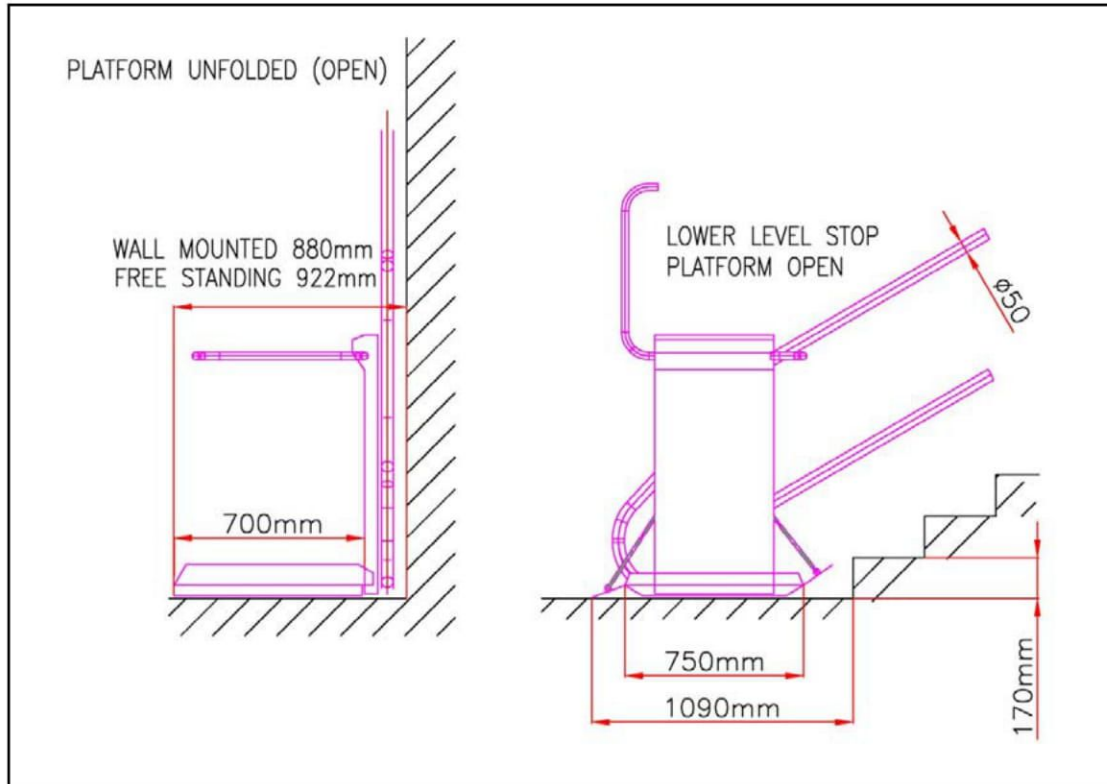


The rails can smoothly adapt to any shape and radius given by the staircase design.



Lower parking space

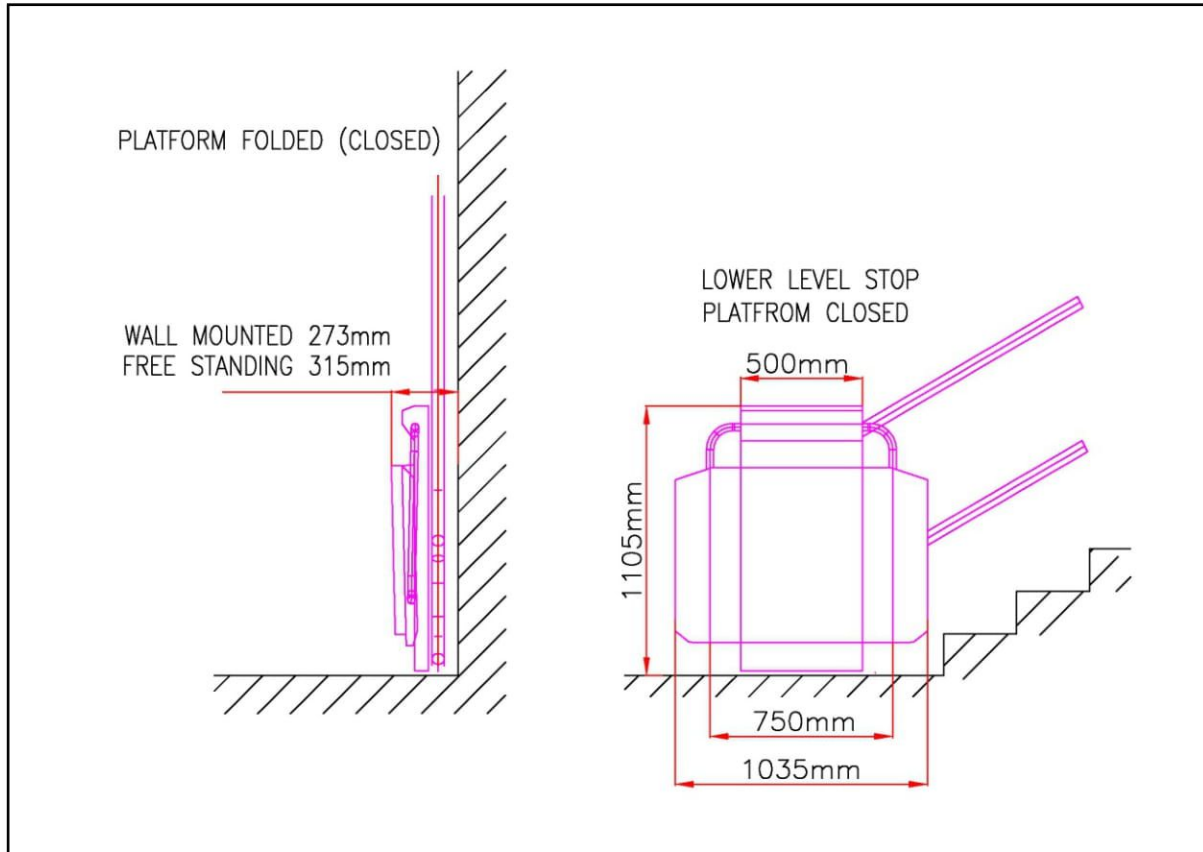
The space required for the parking in the lower stop position can be reduced to a minimum. For a platform length of 750 mm the necessary space required in front of the first step is just 1090 mm. From the wall the platform only occupies 880mm in the unfolded position!



Platform Length	Lower parking space with 150mm ramps and 170mm step height
750mm	1090mm
850mm	1190mm
900mm	1240mm
1000mm	1340mm
1250mm	1590mm

Folded platform dimensions

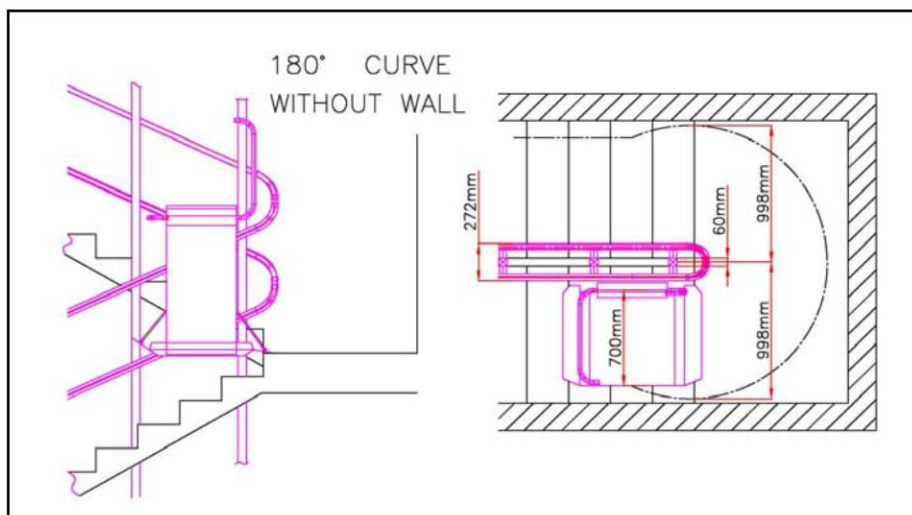
In the folded position the platform occupies only 273 mm of space if fixed directly to the wall, thus increasing the clearance left on the staircase to the maximum. The dimensions of the closed platform show that it was designed to be as compact as possible, so not creating an obstacle when parked away.



3 Inside and outside curves with small radii

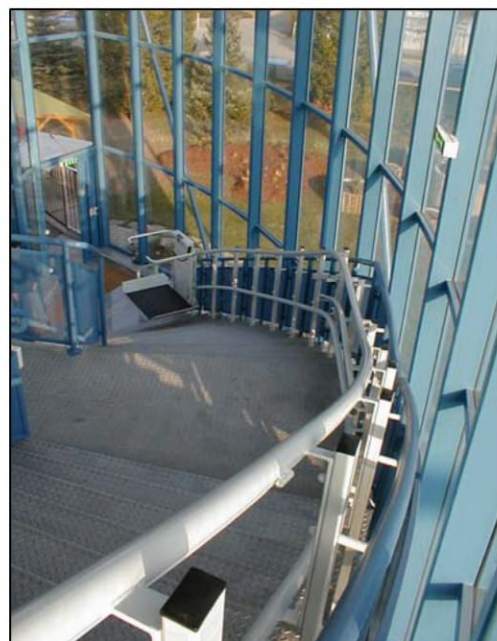
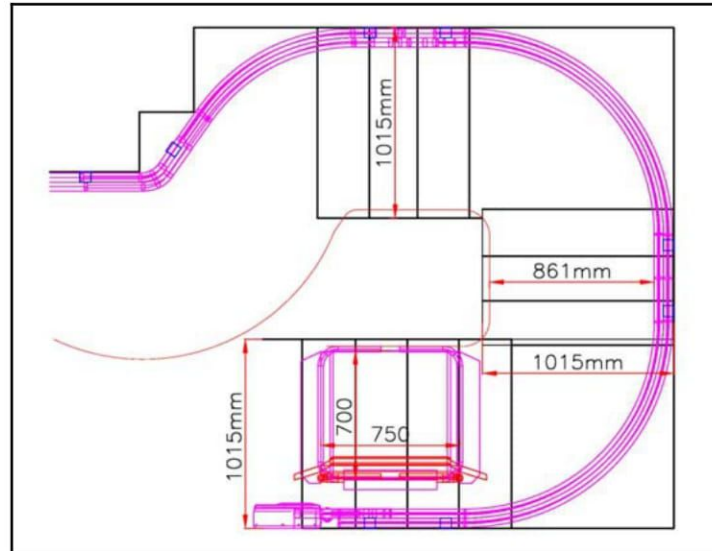
Inside curve radii

For an inside curve the turning radius of the rail can be as small as 220mm. This allows turning around a single pillar (60x60mm) to which the rail brackets are fixed. The pillar can be located on the step, attached to the string of the staircase or be located in the eye of the staircase as can be seen in the example below.



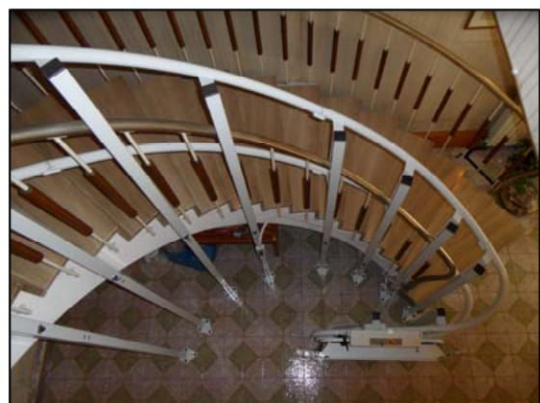
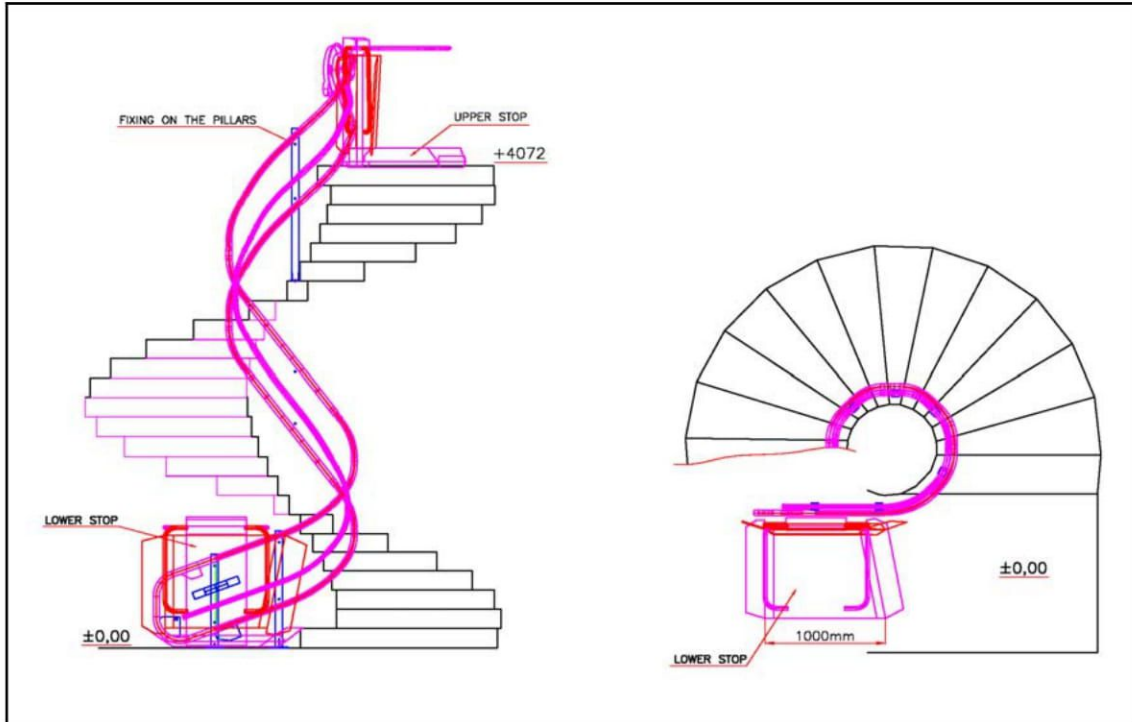
Outside curve with minimum radius

In some cases the Omega rail system allows a platform with size 700x750mm to be installed on an outside (negative) curve rail in staircases with a staircase width of only 1015 mm. Maximum platform dimension for outside curves have to be assessed case by case. Please consult Lehner Lifttechnik if such a case is given.



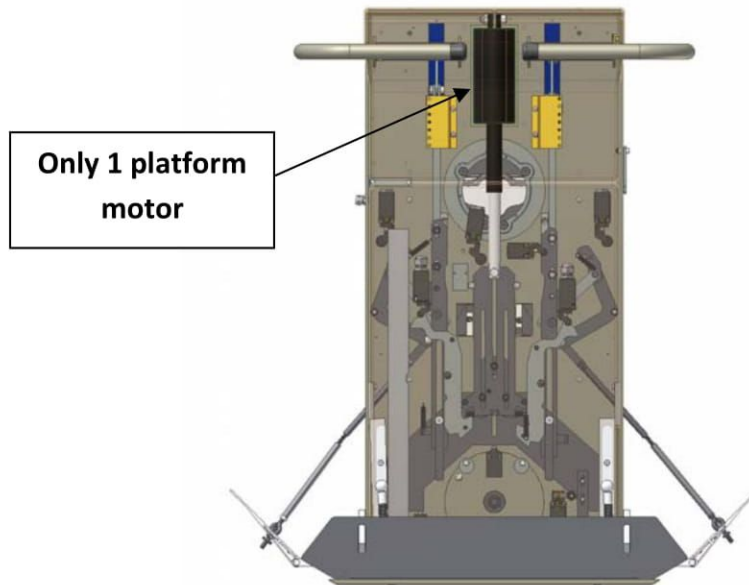
Special radii and spiral staircases

Our high tech rail bending machines allow precise rail design. The rails can be fitted to almost any spiral staircases with very small inner radius (the possible radius is depending on the inclination of staircase). Maximum platform dimension for spiral curves have to be assessed case by case. Please consult Lehner Lifttechnik if such a case is given. Below please find some illustrations.

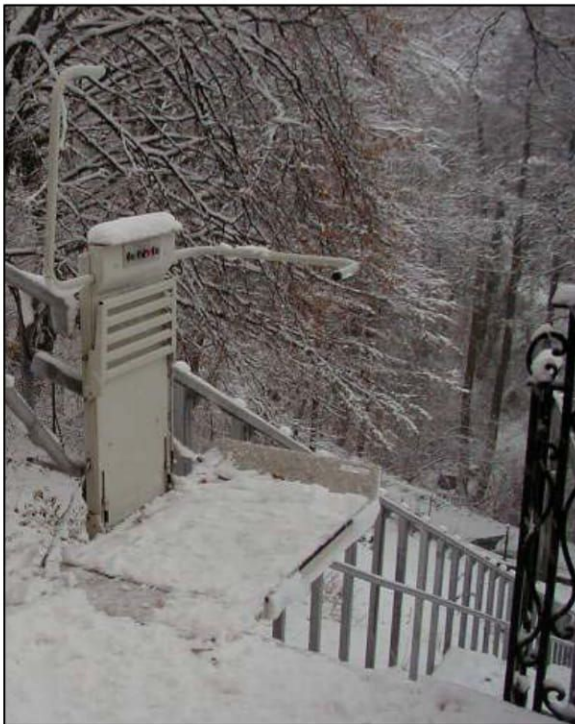


4 Robust design of platform mechanics

The carriage is equipped with a single platform motor that is steering all platform functions. In the centre, the vertically positioned motor activates the folding and opening of the platform as well as the movement of the barrier arms and the access ramps. This unique systems allows for a minimum use of electrical components which makes the unit easy to maintain and very robust for outdoor applications, even in the most unfavourable weather conditions.

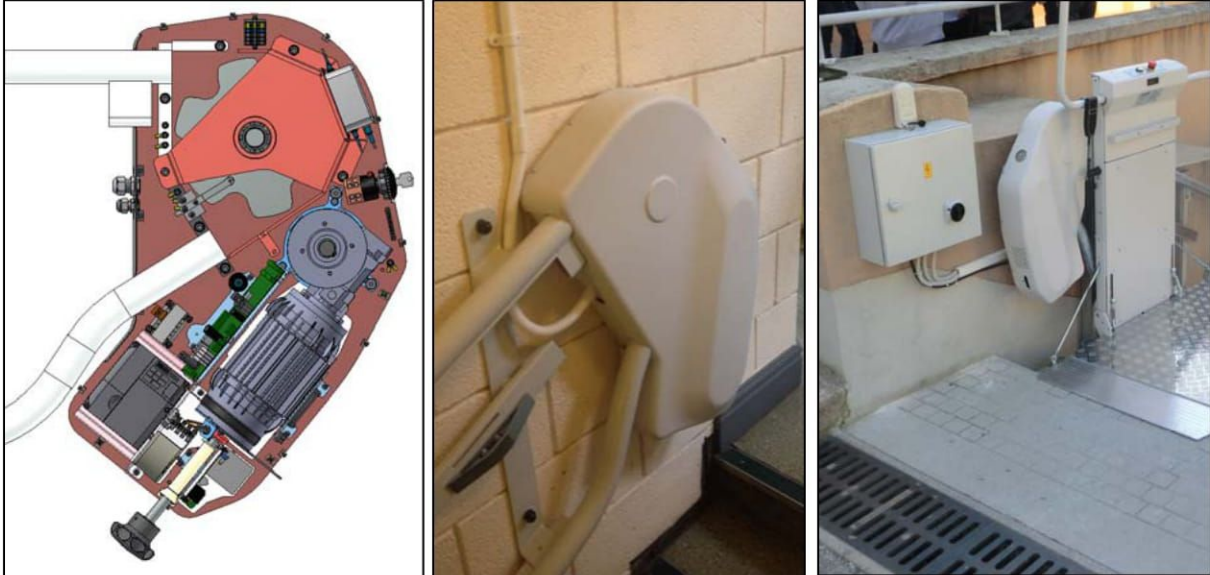


The Omega lift is the most reliable lift for outdoor installations. A great number of outdoor units have been installed in the Austrian and Swiss Alpine region, at altitudes up to 2500m above sea level and winter temperature down to -25°C.

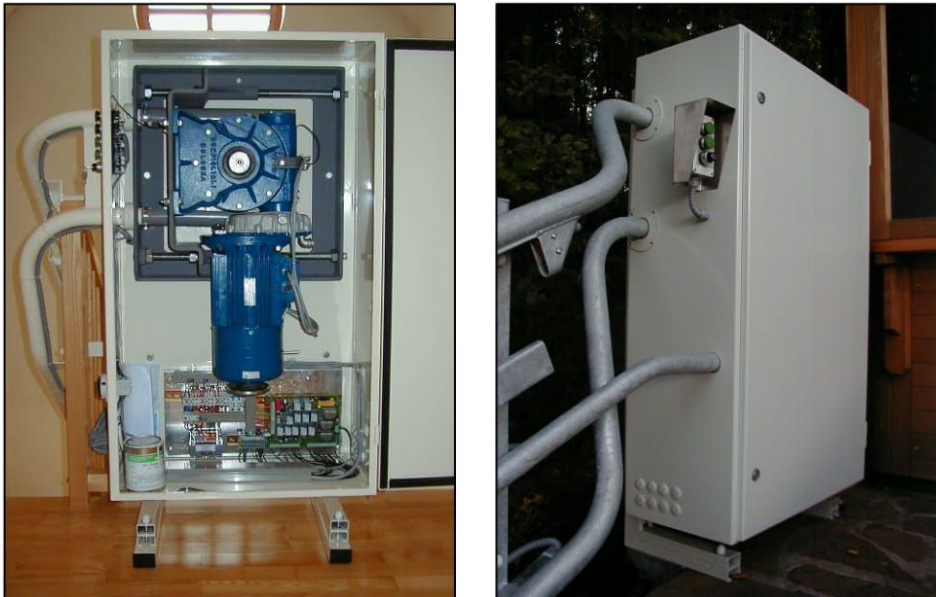


5 Compact drive motor including electronic control

For installation with a rail length up to around 25m (straight rails) or rails with up to 4 x 180° curves a compact drive with a 1,1kW motor can be used and allows for space savings on the top landing and a fast installation. For indoor units all electronics are included in the compact motor box. Outdoor units have a small external control box to ensure function under strong winter conditions.



For rail with more than 4 x 180° curves or straight rails longer than 25m a 1,5kW or 2,2kW motor has to be used. For such a motor a big motor box is needed (Size: 400x700x1200mm).



Generally, for both motor types, no electrical wires need to be run between the landing stations or to the safety switches on the overspeed governor at the lower landing.

6 Diagnostic display on platform sidewall

The Omega F control is equipped with a diagnostic display that can tell the installer as well as the user the actual status of the unit and describes any possible fault the unit may have.



Through the diagnostic display the installer can also enter a programming menu and adjust the following platform parameter:

- Set language of diagnostics (EN, ESP, GER and FR)
- Read detailed error list
- Adjust speed in curves and straight runs
- Adjust visual and audio alarm signal output
- Reset operation time
- Adjust auto fold option

7 Platform controls

The standard Omega platform is equipped with a handset on a spiral cable that contains up/down, audio alarm and an emergency stop button. The hall calls are wireless and equipped with a strong radio signal that can be used for multiple flights of stairs.

As an alternative to the handset a joystick with a stop button can be put on the platform sidewall. There is also the possibility to hard wire the hall calls to the controller in the motor box.

Standard handset



Standard hall call



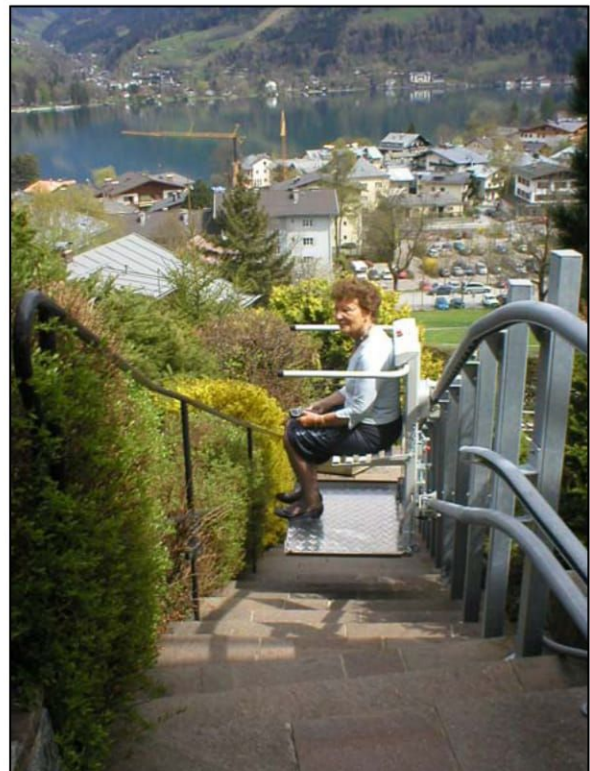
Optional joystick



8 Installation with very long rail length

Outdoor Omega installations with rail lengths of up to 85m have been realized. The traction rope driven systems allows for such long lengths, even for frequent usage, as there are no batteries than can deplete.

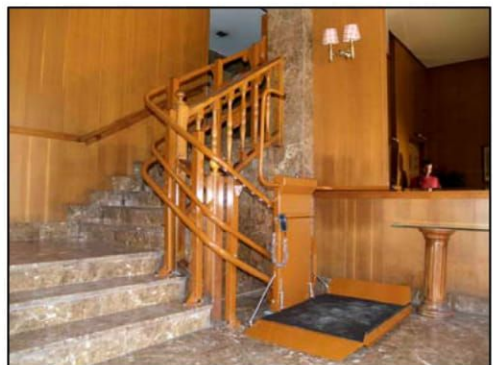
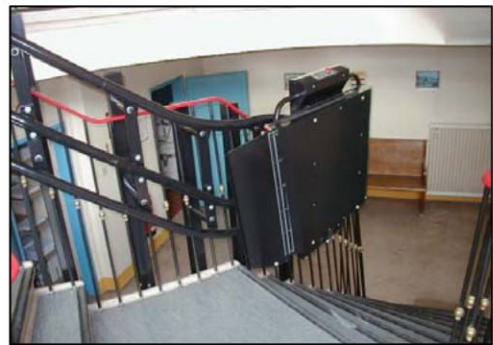
For indoor installations the Omega system is capable of providing a solution to multi-store buildings with up to 10 x 180° curves.



9 Special lift finish

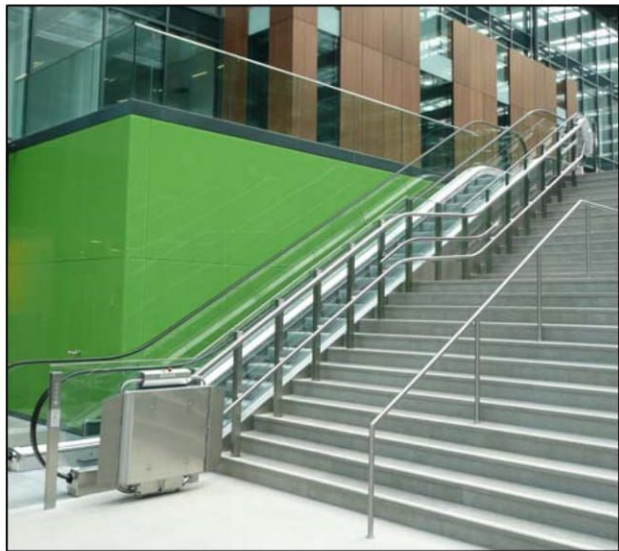
RAL colours

The standard rail colour of the Omega is RAL 7035 (cream-white). If needed, the rail and/or the platform can be powder coated in any RAL colour. Therefore it is possible to match the lift appearance harmonically with the surroundings. Please see below some examples.



Stainless steel

Optional the rail and platform can be finished in high quality stainless steel (grade 306 or grade 316), giving the lift a luxury appearance and fitting perfectly into public spaces.



10 Special projects

Pillars every 3m and seat for 2 people



High-end finish for lifts on yachts



Seat version for very long outdoor or for very slim indoor seat installation – slimmest rail and seat design in the market:



Half or full cabin for outdoor lifts on hillsides:

