



Silens Pro® Machine-roomless lifts

Silens Pro® is a full range of **machine-roomless lifts with gearless, permanent magnet traction motors** designed to **meet any vertical traffic needs**.

The **Silens Pro®** range of lifts covers a **wide range of loads, sizes, speeds, applications and decorative possibilities** providing the best solution for any project or type of building.



Existing buildings

Existing buildings have spaces that are often limited and complicated.

Silens Pro Compact® is a state-of-the-art gearless lift capable of getting through the smallest shafts.



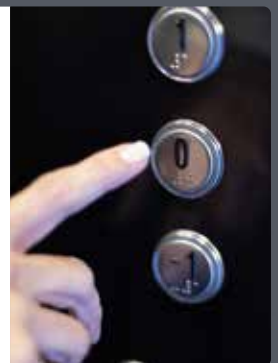
Shopping centres

Silens Pro Vanguard® and **Silens Pro Mega®** lifts are very suitable for carrying passengers and goods in malls and shops: they have the capacity for large loads, are robust and very reliable.



Residential Buildings

Silens Pro Top® is the ideal solution for residential buildings due to its reliability, durability, passenger safety, silence and comfort.



Hospitals

Hospitals need patients and medical equipment to be moved safely, reliably and silently: **the Silens Pro® range** offers various durable, reliable and tailored solutions for use in medical centres.



Office buildings and hotels

Office buildings and hotels often have high volumes of passenger traffic. **Silens Pro® offers various solutions** capable of solving any need for vertical traffic in office and commercial buildings with optimum traffic management.



One range: all solutions

Introducing the **Silens Pro®** range: the most advanced MRL high-performance gearless lifts.



Guaranteed Results

Thousands of **Silens Pro®** lifts of all types of loads, sizes and configurations, **installed in over sixty countries on five continents, are the best guarantee** of their high performance, capable of satisfying the most demanding requirements and specifications.



Machine-roomless

Silens Pro® lifts are machine-roomless, saving space and providing greater freedom in building design.



Quiet, efficient and ecological traction

The **Silens Pro®** range of lifts is equipped with state-of-the-art, eco-friendly, energy-efficient, compact and durable permanent magnet gearless motors.



Energy efficiency

A **Silens Pro®** lift is synonymous with energy efficiency and sustainability.

Silens Pro® lifts have been given the highest score for energy efficiency in compliance with the VDI4707 standard according to the five categories for intensity of use: AAAAAA.



Unbeatable travel comfort

A **Silens Pro®** lift always provides the passenger with a unique travel experience characterised by smooth and quiet movement without oscillations, vibrations or sudden movements.

- The powerful **Altamira II** control system, designed and manufactured by IMEM, controls the lift with complete precision in perfect integration with the gearless motor and other elements that regulate movement.
- Only **Silens Pro®** lifts include as standard the **Direct Approach System**, which optimises the speed of the lift for each trip and reduces travel and waiting times



Easy and rapid installation

The installation protocol for **Silens Pro**® is the result of many years of research and experience and is designed to enable shipping, handling and assembly of the material on site as quickly and easily as possible, minimising labour costs and ensuring the best results.

Packaging optimisation

Silens Pro® is delivered in packaging which is designed to facilitate the installers' work as much as possible. All parts and components of the lift are supplied in a set of sealed packages duly identified and ordered according to a sequential process for assembling the equipment. The material is supplied, numbered and labelled and is accompanied by lists, documentation and assembly manuals with a high degree of detail.

Plug-in and Go

The electrical assemblies are supplied pre-tested and pre-wired and are tested with the same gearless motor that will be supplied with the lift. All this greatly reduces margins of error on site by shortening the installation process and optimising results.

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Technical support professional to professional

During installation and/or maintenance work, we provide our customers with mechanical and electrical technical support tailored to their particular needs. In real time, in your language and using highly qualified engineers.

Customer training

- We offer our clients multilingual learning and training tools in both face-to-face and remote formats.
 - Among our training tools there are detailed videos of the assembly processes for each lift as well as step-by-step manuals.
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We consider **economic, social and environmental sustainability** as an essential reference for our business

Sustainable Manufacturing

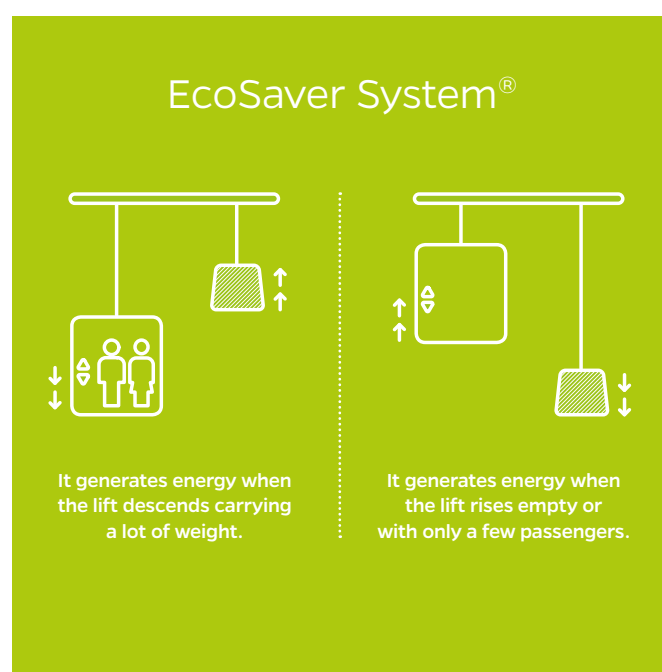
Silens Pro® lifts are designed and manufactured in accordance with the most modern and sustainable production processes.

- Mainly galvanised components are used in the manufacture of **Silens Pro®** lifts, to minimise the use of paints and enable a lower consumption of steel per lift, which means a more efficient and responsible use of resources.
- We use special high strength steel that reduces the weight of the mechanical parts and enhances energy saving.
- The entire production cycle of **Silens Pro®** lifts, from the entry of raw materials to the treatment of waste, is sustainable and complies with **ISO 14001**, an internationally accepted standard that establishes the implementation of an effective environmental management system.

Energy Efficiency Options

The efficient and sustainable consumption of energy is a common goal.

- Choosing the **Silens Pro®** solution suitable for each project and type of building, the appropriate number of lifts to install and their size, are the first steps to optimising energy savings.
- When the cars are not occupied by passengers, the lifts can enter **stand-by mode**. This saves a significant amount of energy over a year, with better sustainability of the installation.
- Our permanent magnet gearless motors have much lower energy consumption levels than a conventional traction motor.
- The power consumption of the car lighting is drastically reduced by using efficient LED lights.
- The **EcoSaver Regenerative System®**, optionally available, allows the gearless motor to act as an energy generator when the lift rises empty or with only a few passengers, or when it descends with a lot of weight.
- We offer solutions with **energy accumulators** that allow power generated during a trip to be stored for subsequent consumption and the consequent economic savings that this entails.



Infinite possibilities

Whatever the need and type of building, there is always a **Silens Pro®** lift capable of providing an ideal solution.

A **Silens Pro®** for every need

The **Silens Pro®** range covers a range of loads from 300 kg to 1275 kg with speeds of 1 and 1.6 m per sec. This ensures that whatever the need and type of building (residential, hotel, hospital, shopping centre, office, etc.) there is always a **Silens Pro®** lift capable of providing the ideal solution.



Structures

For those projects that require it, we offer a complete range of modular assembly structures that can be manufactured for any size of shaft and configuration and finished in painted sheet or glass. We have both indoor and outdoor structures.



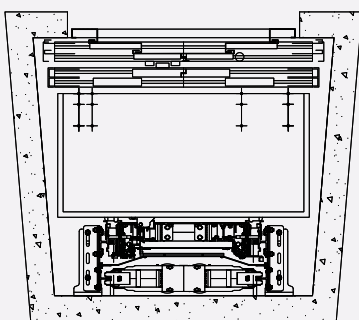
A wide range of doors and floors

The lifts allow automatic doors with telescopic or central opening, manufactured in a range of widths from 700 mm to 1300 mm. Available with different door panels and opening modes and finished in stainless steel, glazed or painted in a wide palette of colours.



Adapts to any space

Each **Silens Pro®** is manufactured in a wide variety of sizes and configurations which can be ordered in addition to those in this catalogue, offering great flexibility in adapting to the unique needs of each project.



Special implementation of **Silens Pro Compact®** in an irregular and reduced shaft.



Silens Pro® meets the most demanding European and international standards

Europe

EN81-20: Safety rules for the construction and installation of lifts. Lifts to carry people and goods. Part 20: Lifts for people and goods.

EN81-50: Safety rules for the construction and installation of lifts. Lifts to carry people and goods. Part 50: Rules of design, calculation, inspection and testing of lift components.

EN81-28: Remote alarms in passenger lifts and passenger and goods lifts.

EN81-58: Test of fire resistance of floor doors.

EN81-70: Personal accessibility of lifts, including people with disabilities.

EN81-71: Lifts resistant to vandalism.*

EN81-72: Lifts for fire fighting.*

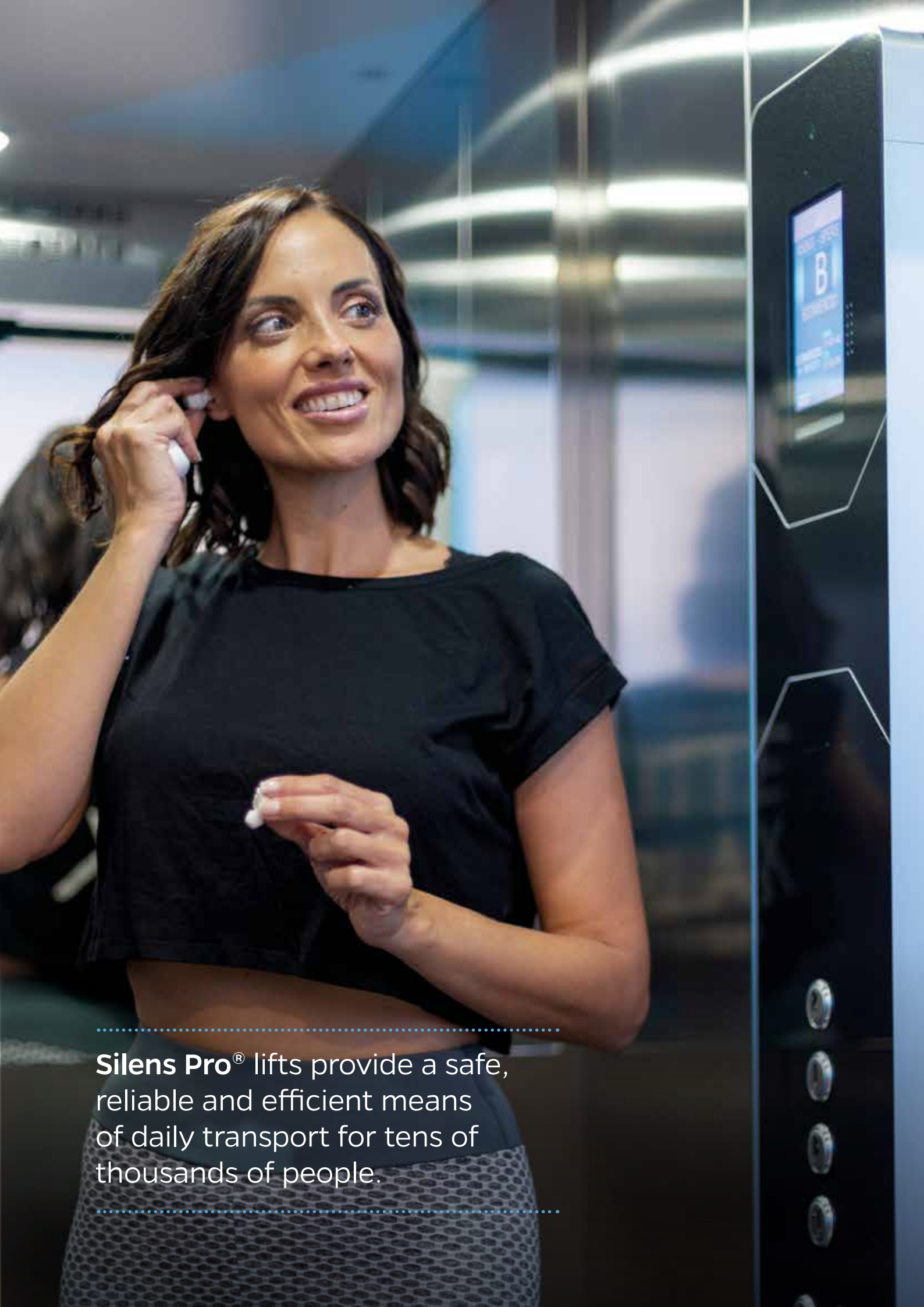
EN81-73: Response of lifts in the event of fire.

EN81-77: Lifts subject to seismic conditions.

Australia

AS1735

*Requires non standard made to order lift cars and finishes. Please see available options.



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Silens Pro® lifts provide a safe,
reliable and efficient means
of daily transport for tens of
thousands of people.

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Silens Pro[®] Range

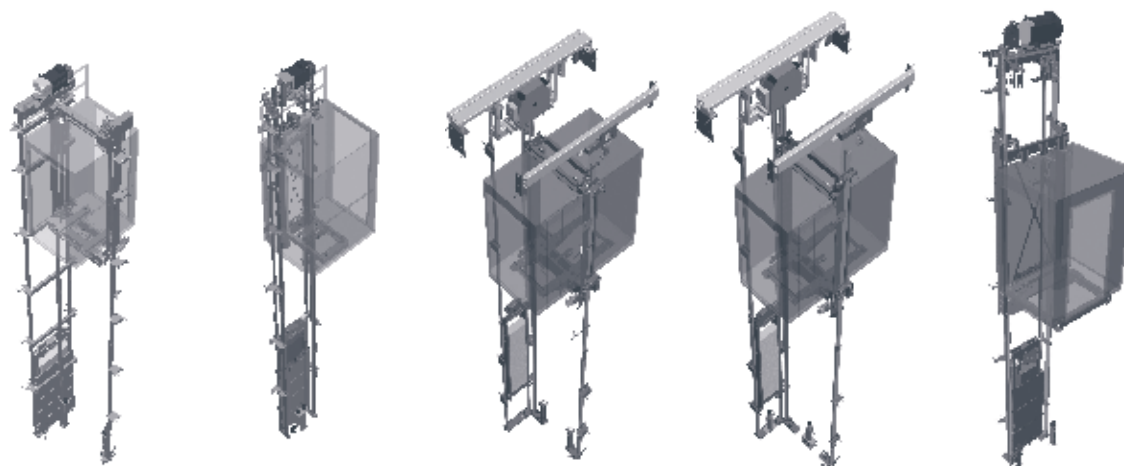
 SilensPRO[®]
TOP

 SilensPRO[®]
COMPACT

 SilensPRO[®]
VANGUARD I

 SilensPRO[®]
VANGUARD II

 SilensPRO[®]
VANGUARD III

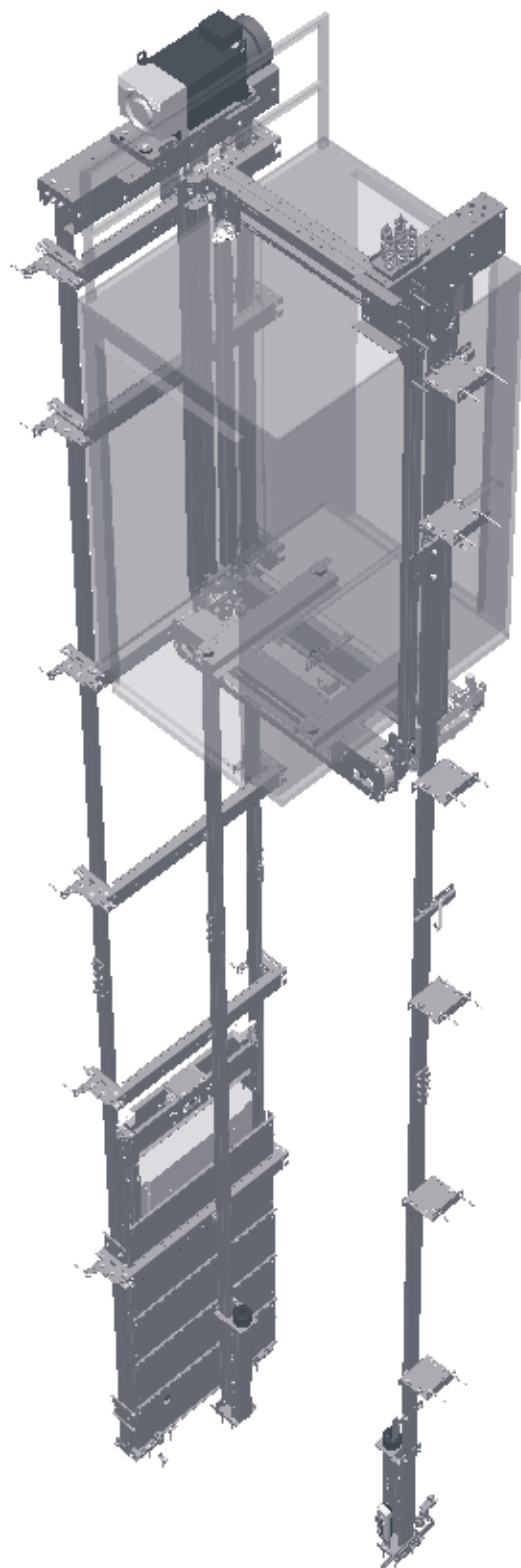


Load (Kg)	300-630	300-630	750-1000	630-1000	750-1275
Max. speed	1 m/s	1 m/s	1 m/s	1,6 m/s	1 m/s y 1,4 m/s
Pit	1050mm	1050mm (minimum 350mm)	1050mm	1300mm	1100mm
Headroom	3400mm	3400mm (minimum 2700mm)	3400mm	3800mm	3450mm
Roping	2:1	2:1	2:1	2:1	2:1
Entrances	0° and 180°	0°, 90° and 180°	0° and 180°	0° and 180°	0°, 90° and 180°
Sling type	Conventional pulleys above	Rucksack frame	Conventional pulleys above	Conventional pulleys above	Rucksack frame

The solution for buildings with normal traffic

- The **Silens Pro Top®** is a **machine-roomless lift**, with **gearless permanent magnet traction**, ideal for residential or commercial buildings with up to 60 metres of travel.
- **Silens Pro Top®** is a robust, reliable and durable lift.
- It incorporates a gearless motor **which is silent, environmentally friendly, compact** and light, designed to occupy the smallest possible space inside a shaft.
- **Very low energy consumption.**
- Designed specifically to **save space** in the building and at the same time provide **cars** that are spacious and comfortable for the user.
- **Easy to install and maintain.** Specific installation tools available on request.
- Equipped as standard with **Direct Approach to Floor**, giving the lift **unbeatable travel** comfort.
- Meets the standards **EN81-20 and EN81-50.**
- **Made in Europe.** 100% designed and manufactured by **IMEM Lifts.**

Load	300-630 kg
Rated speed	1 m/s
Openings	Single Double access 0°-180°
Control system	Altamira II
Cars	200R, ST and 300R Series
Car and landing doors	600, 700, 800, 900 mm
Maximum travel	60 m



 RATED LOAD • 300 kg / 4 people			 ROPING • 2:1		 MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	850	1000	1400	1245	3400	1050	Side opening 2P C/O 700
2/180°	850	1000	1400	1350			
1/0°	800	1050	1350	1295			
2/180°	800	1100	1350	1450			
1/0°	900	950	1450	1195			
2/180°	900	1000	1450	1350			

 RATED LOAD • 375 kg / 5 people			 ROPING • 2:1		 MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	800	1250	1350	1495	3400	1050	Side opening 2P C/O 700
2/180°	800	1250	1350	1600			
1/0°	850	1200	1400	1445			
2/180°	850	1200	1400	1550			
1/0°	900	1100	1450	1345			
2/180°	900	1100	1450	1450			

 RATED LOAD • 450 kg / 6 people			 ROPING • 2:1		 MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	950	1250	1500	1495	3400	1050	Side opening 2P C/O 800
2/180°	950	1250	1500	1600			
1/0°	1000	1200	1550	1445			
2/180°	1000	1200	1550	1550			
1/0°	1000	1300	1550	1545			
2/180°	1000	1300	1550	1650			

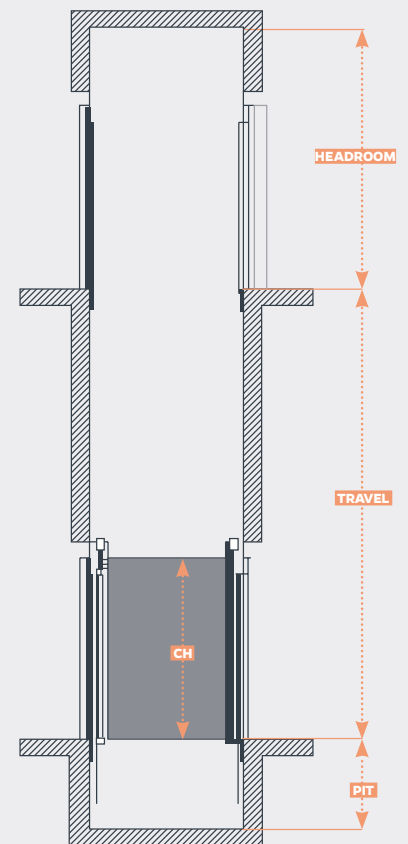
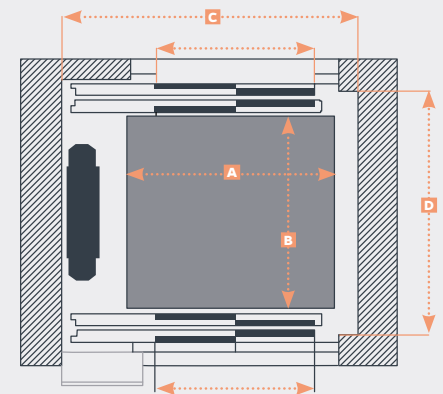
 RATED LOAD • 630 kg / 8 people			 ROPING • 2:1		 MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1100	1400	1650	1645	3400	1050	Side opening 2P C/O 800
2/180°	1100	1400	1650	1750			
1/0°	1100	1400	1650	1645			Side opening 2P C/O 900
2/180°	1100	1400	1650	1750			

Minimum shaft and car dimensions

Car EN81-70

* According to the door and opening type.

** Headroom option reduced by 3200 mm with 2000 mm car.



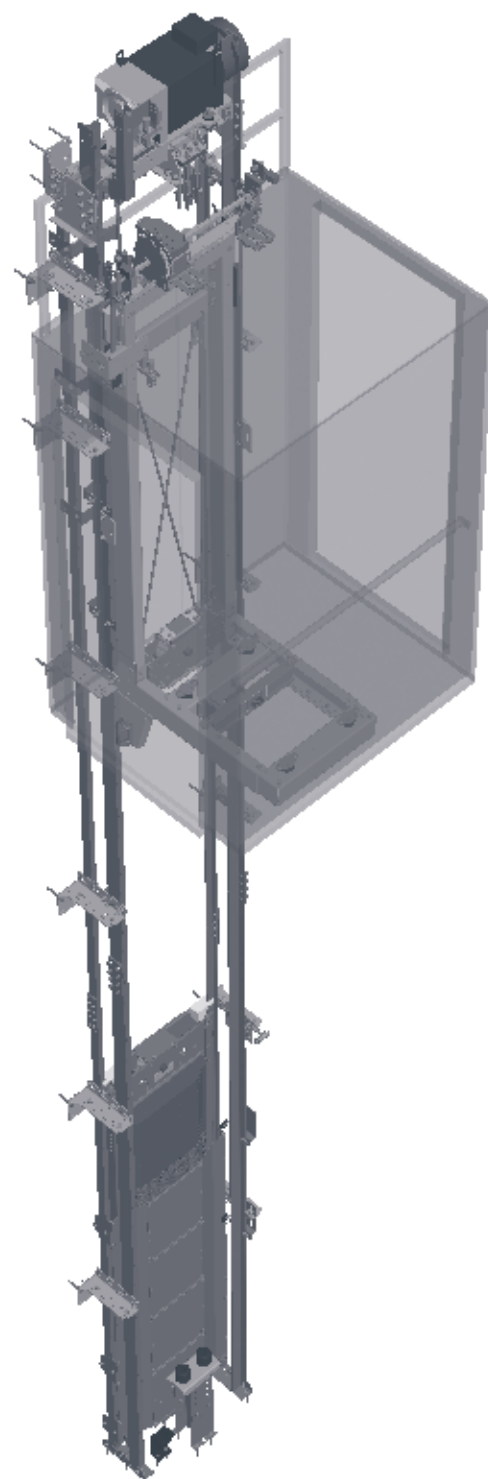
Operational ranges (standard mechanics)

Maximum travel	Up to 60 m	
	Pit	Standard minimum: 1050 mm
	Headroom	Standard minimum (2200 mm) car: 3400 mm Reduced minimum (2000 mm car): 3200 mm
	Minimum width	Car width + 500 mm
Shaft	Minimum depth	Single entrance: 950mm Double entrance: 1000mm
	Maximum depth	1500 mm
Car	Minimum width	800 mm
	Maximum width	1300 mm
	Standard height	2200 mm (options from 2000 mm to 2300 mm in increments of 50 mm)

The solution for restricted spaces

- The **Silens Pro Compact®** is a machine-roomless lift with **permanent magnet gearless traction** designed for installation in confined spaces. **It's ideal for existing buildings**.
- It can be installed with **ultra-low headroom and pit clearance**.
- Allows **single, double 90° or 180° and triple access**.
- It incorporates a gearless motor **which is silent, environmentally friendly, compact** and light, designed to occupy the smallest possible space inside a shaft.
- **Very low energy consumption**.
- **Easy to install and maintain**. Specific installation tools available on request.
- Equipped as standard with the **Direct Approach to Floor**, giving the lift **unbeatable travel** comfort.
- Meets the standards **EN81-20 and EN81-50**.
- **Made in Europe**. 100% designed and manufactured by **IMEM Lifts**.

Load	300-630 kg
Rated speed	1 m/s
Openings	Single Double access 90°-180° Triple access
Control system	Altamira II
Cars	200R, ST and 300R Series
Car and Landing Doors	600, 700, 800, 900 mm
Maximum travel	40 m



Side-mounted system

RATED LOAD • 300kg / 4 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	850	1000	1300	1245	3400	1050	Side opening 2P C/O 700
2/180°	850	1000	1300	1350			
2/90°	850	1000	1415	1245			

RATED LOAD • 375kg / 5 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	900	1100	1350	1345	3400	1050	Side opening 2P C/O 700
2/180°	900	1100	1350	1450			
2/90°	900	1100	1465	1345			

RATED LOAD • 450kg / 6 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1000	1200	1450	1445	3400	1050	Side opening 2P C/O 800
2/180°	1000	1200	1450	1550			
2/90°	1000	1200	1565	1445			
1/0°	1000	1300	1450	1545			
2/180°	1000	1300	1450	1650			
2/90°	1000	1300	1565	1545			

RATED LOAD • 630kg / 8 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1100	1400	1550	1645	3400	1050	Side opening 2P C/O 900
2/180°	1100	1400	1550	1750			
2/90°	1100	1400	1665	1645			

Rear-mounted system

RATED LOAD • 300kg / 4 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1000	850	1230	1415	3400	1050	Central 4P C/O 700

RATED LOAD • 375kg / 5 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1100	900	1330	1465	3400	1050	Central 4P C/O 700

RATED LOAD • 450kg / 6 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1300	1000	1460	1565	3400	1050	Central 4P C/O 800

RATED LOAD • 630kg / 8 people			ROPING • 2:1		MAXIMUM SPEED • 1 m/s		
Entrances	Car		Shaft		Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	1400	1100	1530	1665	3400	1050	Central 4P C/O 900

Operational ranges (standard mechanics)

Maximum travel		Up to 40 m	
Shaft	Pit	Standard minimum: 1050 mm (EN81-20) Reduced minimum EN81-21: 350 mm Reduced minimum: 375 mm (with floor thickness of 25 mm)	
	Headroom	Standard minimum (2200 mm) car: 3400 mm Reduced minimum (2000 mm car): 3200 mm Reduced minimum EN81-21 with car 2000 mm: 2700 mm	
	Minimum width	Car width + 450 mm (Side mechanics)	
	Minimum depth	650 mm	
Car	Mechanics	Maximum depth 1600 mm	
	Lateral	Minimum width 700 mm	
		Maximum width 1200 mm	
		Minimum depth 700 mm	
	Mechanics	Maximum depth 1200 mm	
	Depth	Minimum width 800 mm Maximum width 1600 mm	
Standard height		2200 mm (options from 2000 mm to 2300 mm in increments of 50 mm)	

Minimum shaft and car dimensions

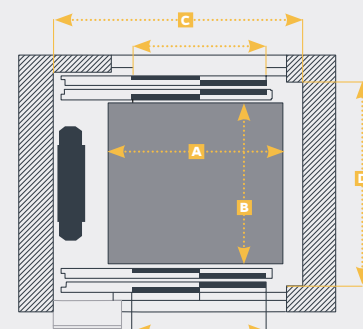
Car EN81-70

* According to the door and opening type.

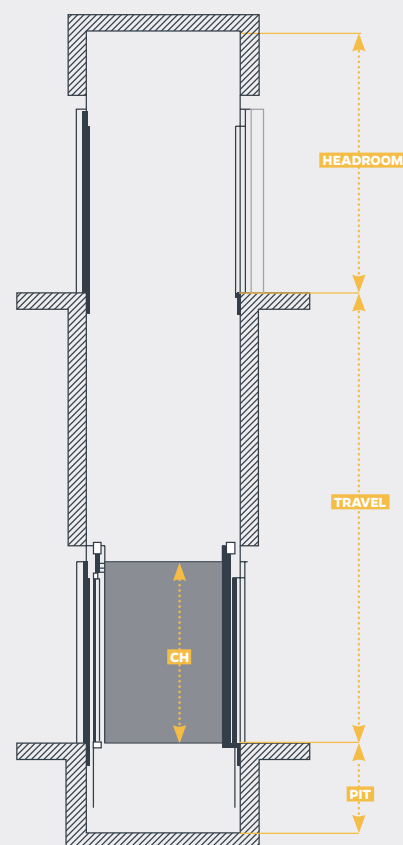
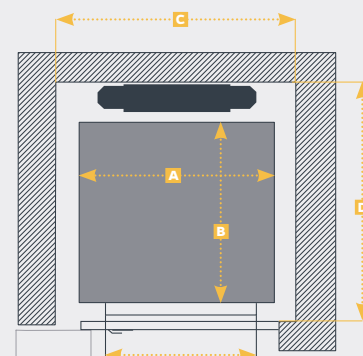
** Headroom option reduced by 3200 mm with 2000 mm car.

*** Minimum pit option up to 350 mm (EN81-21). For headroom and pit reduced shafts (simultaneously) P+Q must be revised. Door clearances will be studied according to project for double embarkations at 90° or triple embarkations. Other door clearances will be studied according to project

Side-mounted system

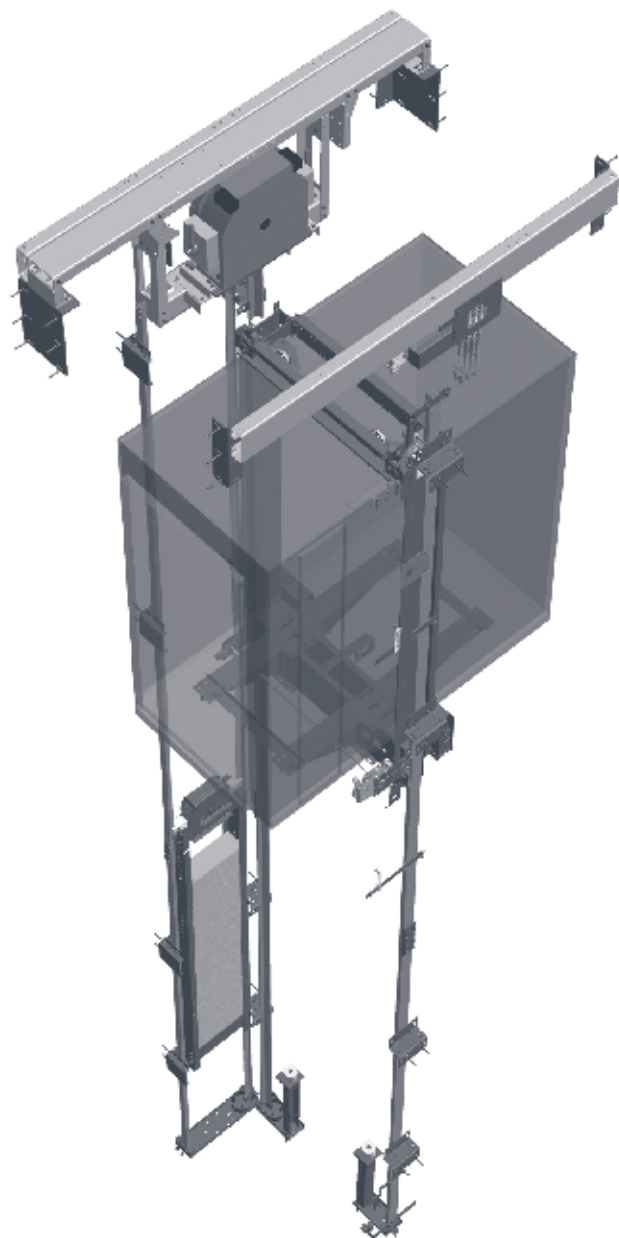


Rear-mounted system



The solution for medium to high traffic buildings

- The **Silens Pro Vanguard I®** is a machine-roomless lift with permanent magnets gearless traction, ideal for office buildings, shopping centres, hotels or other facilities up to 40 metres high.
- The **Silens Pro Vanguard I®** is a **robust, reliable** and highly durable lift.
- It incorporates a gearless motor **which is silent, environmentally friendly, compact and light**, designed to occupy the smallest possible space inside a shaft.
- **Very low energy consumption.**
- **Easy to install and maintain.** Specific installation tools available on request.
- Equipped as standard with the **Direct Approach to Floor**, giving the lift **unbeatable travel** comfort.
- Meets the standards **EN81-20 and EN81-50**.



Load	750-1000 kg
Rated speed	1 m/s
Openings	Single Double access 0°-180°
Control system	Altamira II
Cars	200R, ST and 300R Series
Car and Landing Doors	800, 900, 1000 or 1100 mm
Maximum travel	40 m

 RATED LOAD • 750kg / 10 people

 ROPING • 2:1

 MAXIMUM SPEED • 1 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	1600	1600	1855	3400	1050	Side opening 2P C/O 900
	1300	1400	1800	1655			
	1100	1600	1950	1819			Central opening 2P C/O 900
	1300	1400	1950	1619			
2 /180°	1100	1600	1600	1950			Side opening 2P C/O 900
	1300	1400	1800	1750			
	1100	1600	1950	1878			Central opening 2P C/O 900
	1300	1400	1950	1678			

 RATED LOAD • 1000kg / 13 people

 ROPING • 2:1

 MAXIMUM SPEED • 1 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	2100	1600	2355	3400	1050	Side opening 2P C/O 900
	1600	1400	2100	1655			Side opening 2P C/O 1100
	1100	2100	1950	2319			Central opening 2P C/O 900
	1600	1400	2125	1619			
2 /180°	1100	2100	1600	2450			Side opening 2P C/O 900
	1600	1400	2100	1750			Side opening 2P C/O 1100
	1100	2100	1950	2378			Central opening 2P C/O 900

Operational ranges (standard mechanics)

Maximum travel	Up to 40 m
	Pit Standard minimum: 1050 mm
Shaft	Headroom Standard minimum (2200 mm) car: 3400 mm Reduced minimum (2000 mm car): 3200 mm
	Minimum width Car width + 500 mm
	Minimum depth 1400 mm
Car	Maximum depth 2100 mm
	Minimum width 1000 mm
	Maximum width 1650 mm
	Standard height 2200 mm (2000 mm and 2100 mm option)

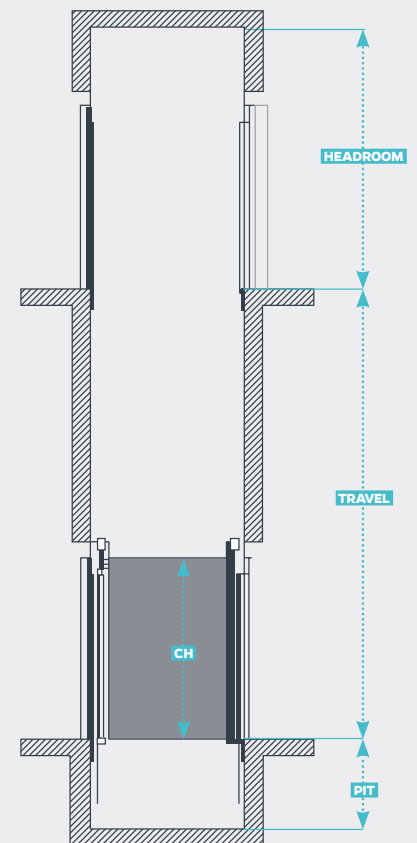
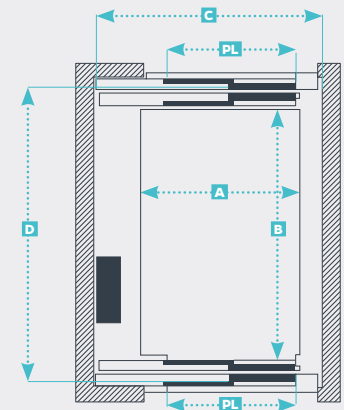
Car EN81-70

* According to the door and opening type.

** Option for reduced headroom of 3200 mm with car of 2000 mm.

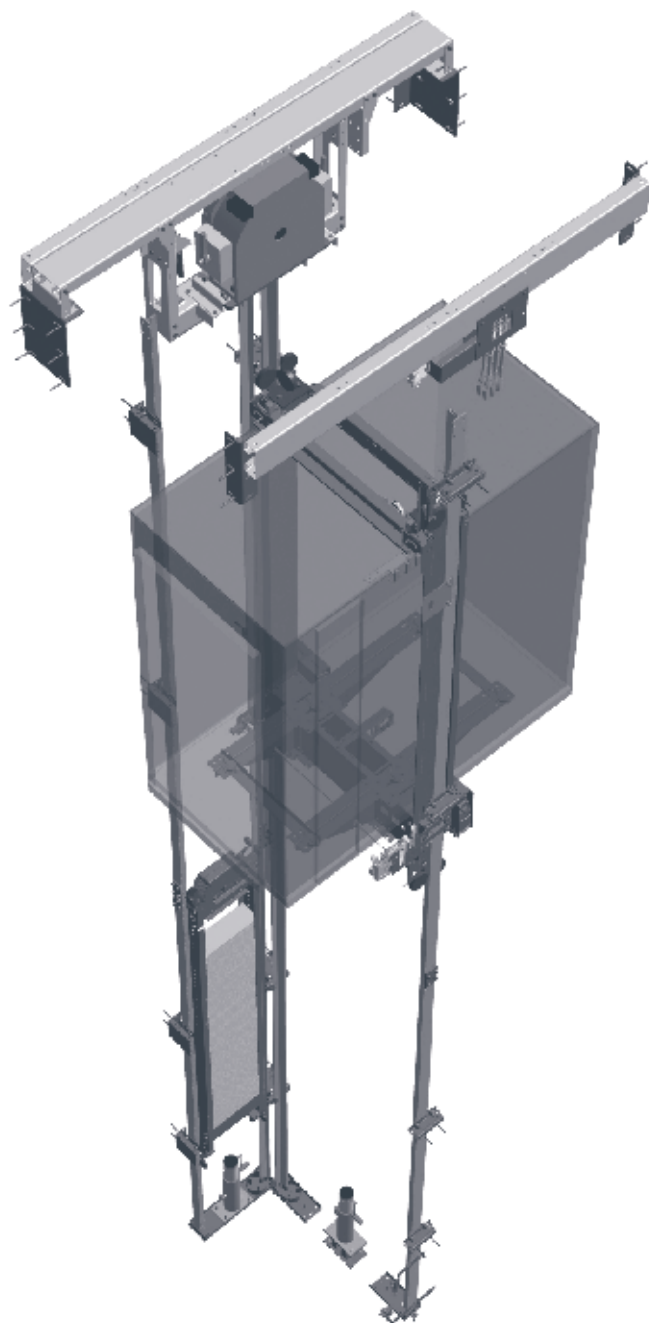
*** For lifts with marble floors or panoramic cars, check pit and headroom.

For lifts with reduced car, consult pit and headroom.



The solution for high-traffic buildings

- The **Silens Pro Vanguard II®** is a **machine-roomless lift** with permanent magnets gearless traction, **ideal for office buildings, shopping centres, hotels or other facilities up to 60 metres high**.
- Its speed of **1.6 m per sec** and its load capacity make it ideal for buildings with a fluid traffic of passengers.
- The **Silens Pro Vanguard II®** is a **robust, reliable and highly durable lift**.
- It incorporates a gearless **motor which is silent, environmentally friendly, compact and light**, designed to occupy the smallest possible space inside a shaft.
- **Very low energy consumption.**
- **Easy to install and maintain.** Specific installation tools available on request.
- Equipped as standard with the **Direct Approach to Floor**, giving the lift **unbeatable travel** comfort.
- Meets the standards **EN81-20 and EN81-50**.



Load	630-1000 kg
Rated speed	1.6 m/s
Openings	Single Double access 0°-180°
Control system	Altamira II
Cars	200R, ST and 300R Series
Car and Landing Doors	800, 900, 1000 or 1100 mm
Maximum travel	60 m

 RATED LOAD • 630kg / 8 people

 ROPING • 2:1

 MAXIMUM SPEED • 1.6 m/s

Car EN81-70

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	1400	1650	1655	3800	1300	Side opening 2P C/O 900
	1100	1400	1650	1619			Central opening 2P C/O 900
2/180°	1100	1400	1650	1750			Side opening 2P C/O 900
	1100	1400	1650	1678			Central opening 2P C/O 900

* According to the door and opening type.

** Headroom option reduced by 3600 mm with 2000 mm car.

*** For lifts with marble floors or panoramic cars, check pit and headroom.

For lifts with reduced car, consult pit and UP.

 RATED LOAD • 750kg / 10 people

 ROPING • 2:1

 MAXIMUM SPEED • 1.6 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	1600	1650	1855	3800	1300	Side opening 2P C/O 900
	1300	1400	1850	1655			Side opening 2P C/O 900
	1100	1600	2000	1819			Central opening 2P C/O 900
	1300	1400	2000	1619			Central opening 2P C/O 900
2/180°	1100	1600	1650	1950			Side opening 2P C/O 900
	1300	1400	1850	1750			Side opening 2P C/O 900
	1100	1600	2000	1878			Central opening 2P C/O 900
	1300	1400	2000	1678			Central opening 2P C/O 900

 RATED LOAD • 1000kg / 13 people

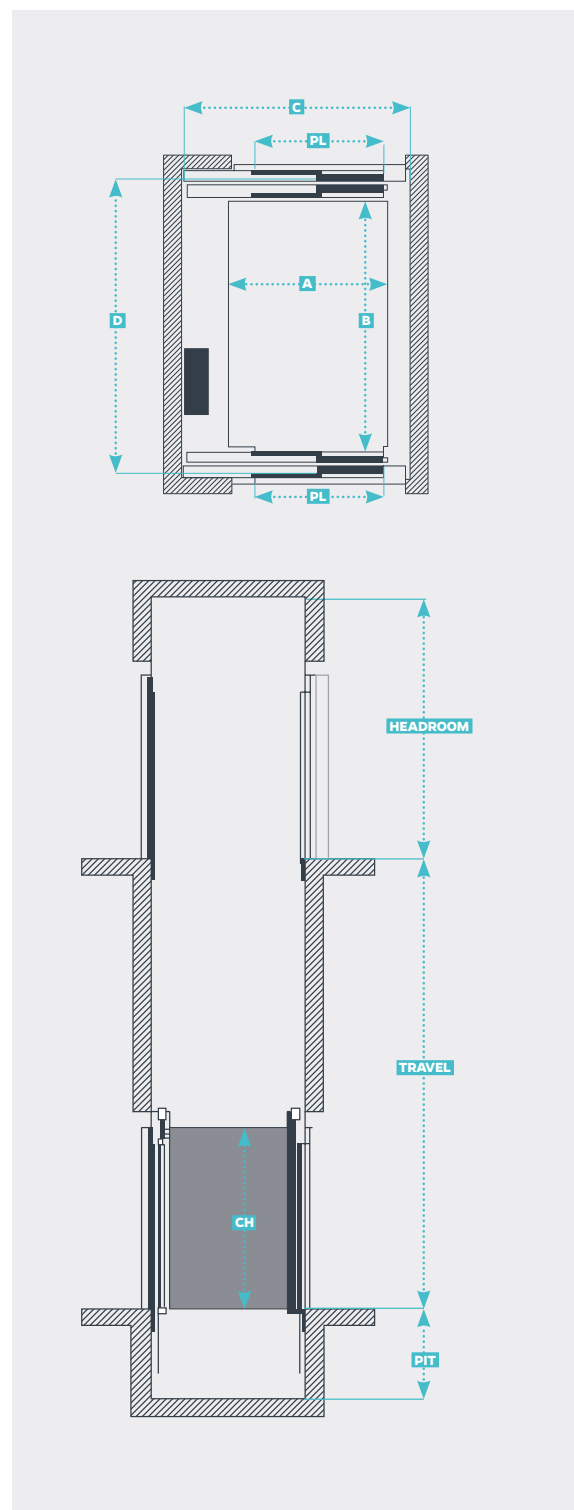
 ROPING • 2:1

 MAXIMUM SPEED • 1.6 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	2100	1650	2355	3800	1300	Side opening 2P C/O 900
	1600	1400	2150	1655			Side opening 2P C/O 1100
	1100	2100	2000	2319			Central opening 2P C/O 900
	1600	1400	2175	1619			Central opening 2P C/O 900
2/180°	1100	2100	1650	2450			Side opening 2P C/O 900
	1600	1400	2150	1750			Side opening 2P C/O 1100
	1100	2100	2000	2378			Central opening 2P C/O 900
	1600	1400	2175	1678			Central opening 2P C/O 900

Operational ranges (standard mechanics)

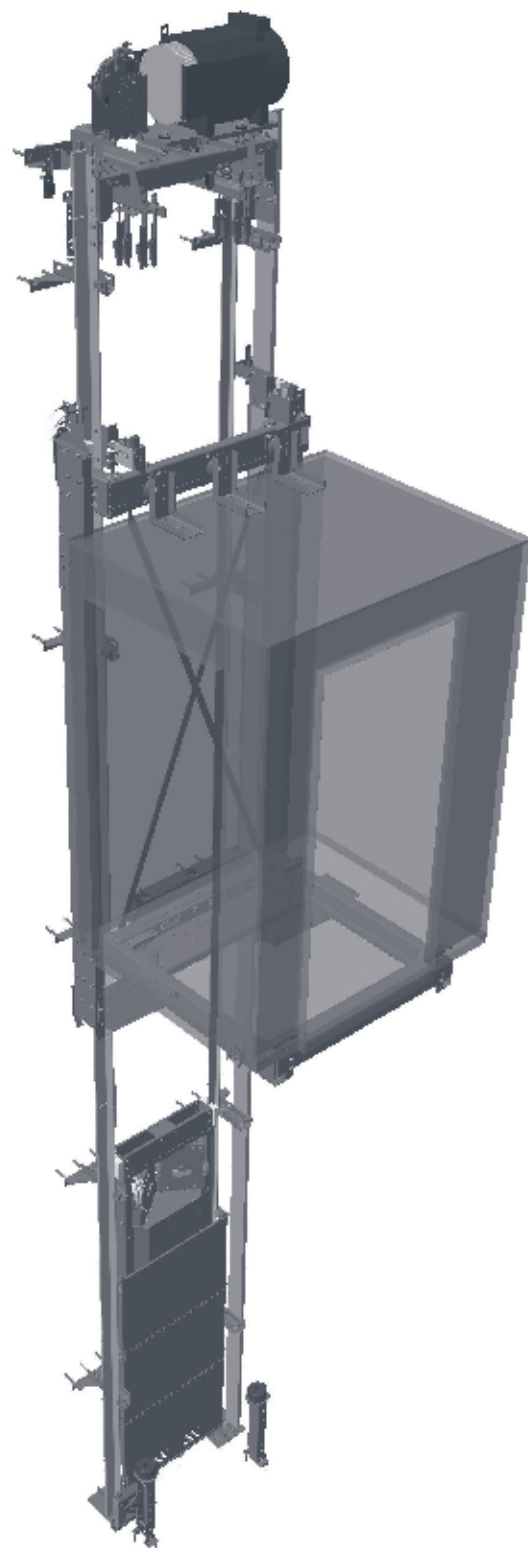
Maximum travel	Up to 60 m
	Pit Standard minimum: 1300 mm
Shaft	Headroom Standard minimum (2200 mm) car: 3800 mm Reduced minimum (2000 mm car): 3600 mm
	Minimum width Car width + 550 mm
Car	Minimum depth 1400 mm
	Maximum depth 2100 mm
	Minimum width 1000 mm
	Maximum width 1650 mm
	Standard height 2200 mm (2000 mm and 2100 mm option)



The flexible solution for the commercial sector

- The **Silens Pro Vanguard III®** is a machine-roomless lift with permanent magnets gearless traction, ideal for office buildings, shopping centres, hotels or other facilities up to 40 metres high.
- **Silens Pro Vanguard III®** is a robust, reliable and highly durable lift.
- It supports **single, double 90° or 180°, and triple access**.
- It incorporates a gearless motor **which is silent, environmentally friendly, compact and light**, designed to occupy the smallest possible space inside a shaft.
- **Very low energy consumption.**
- **Easy to install and maintain.** Specific installation tools available on request.
- Equipped as standard with the **Direct Approach to Floor**, giving the lift **unbeatable travel** comfort.
- Meets the standards **EN81-20 and EN81-50**.

Load	750-1275 kg
Rated speed	1 and 1.4 m/s
Openings	Single Double access 90°-180° Triple access
Control system	Altamira II
Cars	200R, ST and 300R Series
Car and Landing Doors	800, 900, 1000, 1100, 1200 or 1300mm
Maximum travel	40 m



 RATED LOAD • 750kg / 10 people

 ROPING • 2:1

 MAXIMUM SPEED • 1 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	1600	1650	1855	3450	1100	Side opening 2P C/O900
2/90°	1100	1600	1755	1855			
2/180°	1100	1600	1650	1950			

 RATED LOAD • 1000kg / 13 people

 ROPING • 2:1

 MAXIMUM SPEED • 1 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1100	2100	1650	2355	3450	1100	Side opening 2P C/O900
2/90°	1100	2100	1755	2355			
2/180°	1100	2100	1650	2450			
1/0°	1400	1600	1950	1855			
2/90°	1400	1600	2055	1855			
2/180°	1400	1600	1950	1950			

 RATED LOAD • 1275kg / 17 people

 ROPING • 2:1

 MAXIMUM SPEED • 1 m/s

Entrances Angle	Car		Shaft		Headroom** CH 2200mm	Pit	Door type Maximum
	Width (A)	Depth (B)	Width (C)	Depth* (D)			
1/0°	1400	2000	1950	2255	3450	1100	Side opening 2P C/O 1100
2/90°	1400	2000	2055	2255			
2/180°	1400	2000	1950	2350			
1/0°	1400	2000	1950	2219	3450	1100	Central opening 2P C/O 900
2/90°	1400	2000	2019	2219			
2/180°	1400	2000	1950	2278			

Speed

Standard speed 1 m/s. Option for 1.4 m/s with minimum pit 1300 and headroom 3800mm.

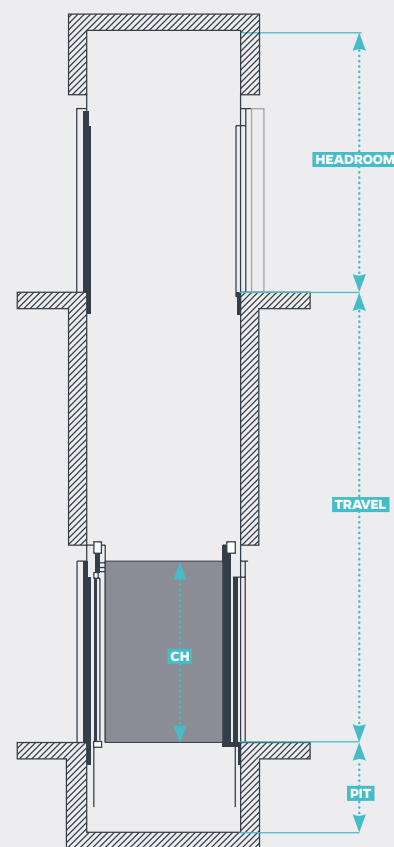
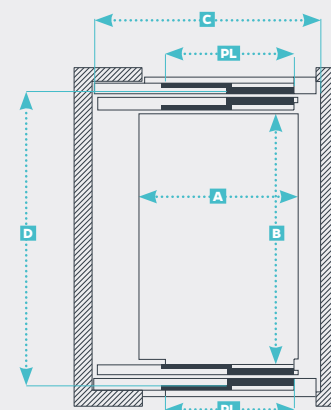
Operational ranges (standard mechanics)

Maximum travel		Up to 40 m
	Pit	Standard minimum: 1100 mm
Shaft	Headroom	Standard minimum (2200 mm) car: 3450 mm Reduced minimum (2000 mm) car: 3250 mm
	Minimum width	Car width + 550 mm
	Minimum depth	1400 mm
Car	Maximum depth	2500 mm
	Minimum width	1050 mm
	Maximum width	1600 mm
	Standard height	2200 mm (2000 mm to 2400 mm option)

Car EN81-70

* According to the door and opening type.

** Minimum headroom for Speed 1 m/s: 3250mm (lift car's height 2000mm).
Minimum headroom for Speed 1.4 m/s: 3600mm (lift car's height 2000mm).







Modern design - all to the customer's taste

The new range of design options specifically developed for the **Silens Pro**® caters for our customers' most demanding tastes, right down to the last detail, both in terms of appearance and of function. The result is a relaxed user experience and the capacity to shine, whatever the architectural setting.





200 *Revolution Series*

200 Revolution Series cars are built with galvanised steel sheeting with plastic laminates available in a wide range of colours or with stainless steel in a choice of different patterns.

- **In-car lighting:** direct, using LED spotlights from either range.
- **Lift-car doors and front returns:** finished in stainless steel.
- **Car operating panel:** BCR 1 model which includes the 7" TFT colour indicator. Other operating panels available.
- Optional **skirting** in anodised aluminium finish.
- **Car floors** available in hard-wearing polymer options.
- **Handrails** (optional): finished in AISI 304 stainless steel. Lift car is also available with handrails on all walls or without.
- **Mid-height mirror.**
- Design in full accordance with 2014/33/EU Directive, EN 81-20, EN 81-50 and EN 81/70.





ST Revolution Series

The ST *Revolution Series* cabins are made with stainless steel sheets in different textures.

- Direct **car lighting** through various LED spotlight options.
- **Car doors** and front returns in stainless steel finish.
- BCR2 model **car operating panel** with 7" TFT colour display. Other operating panels available.
- Optional **skirting** in anodised aluminium finish.
- **Car floors** available in hard-wearing polymer options. Other finishes available to order.
- **Handrail** in AISI 304 stainless steel Cabin available with hand-rail on all walls or without handrail.
- **Mid-height mirror.**
- Design in full accordance with 2014/33/EU Directive, EN 81-20, EN 81-50 and EN81-70.





300 *Revolution Series*

300 Revolution Series lift cars are built with galvanised steel sheeting and clad with high-pressure laminates in a wide range of colours.

- **In-car lighting:** direct, using LED spotlights from either range.
- **Lift-car doors and front returns:** finished in stainless steel.
- **Car operating panel:** BCR 2 model which includes the 7" TFT colour indicator. Other operating panels available.
- **Skirting** in anodised aluminium finish.
- **Car floors** available in hard-wearing polymer options.
- **Handrail** in AISI 304 stainless steel. Car available with handrail on all walls or without handrail.
- **Height mirror.**
- Design in full accordance with 2014/33/EU Directive, EN 81-20, EN 81-50 and EN81-70.

Lift car's real internal dimensions with decoration 300 will be less than what shown in our drawings/charts.

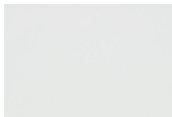
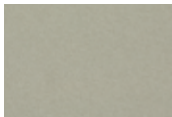
EN81:20, EN 81:70 and AS1735-12 norms state that internal lift car measurements are to be calculated between structural walls, allowing surface reductions caused by the different wall finishes. 300R's decoration complies with the above mentioned norms.



Car wall panels

 Light Reflectance Value

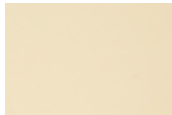
200 Revolution® Series · Skinplate

					
PB10  35	PB15  51	PB20  64	PB25  37	PB30  53	PB35  18
					
PB40  64	PB50  43	PB55  57	PB60  15	P422  32	P432  35
					
PB80  30	PB65  32	PB70  15	PB75  7	P222  72	

Revolution Series ST® · Stainless steel

		
Inox  45	Linen  20	Elephant skin  22

300® Revolution Series · High-pressure laminates

						
PM60  7	PM 20  7	PM 25  44	PM 35  73	PM 40  34	PM 45  31	
						
PM 50  24	PM 55  9	PM65  40	PM70  35	PM75  14	PM80  10	PM85  13



Light Reflectance Value

Flooring

Rubber



S45GN

4



S42GB

27



S101

10



S102

26



S52GN

15



S62GG

58

Granite



Pearl gray

35

Clear
labrador

35

Black
labrador

5

Marble



White Italia

85

Brown
portuguese

65

Stainless steel



S2_I

39



S35_I

45

Aluminium



S3AL

42

Local flooring preparation 25mm
available on request.



Handrails

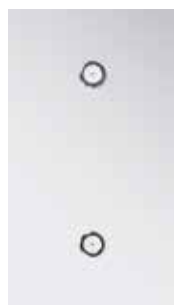


PSR

45

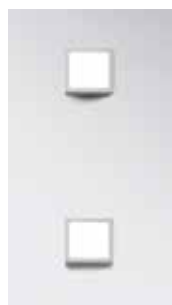


Lighting



Spot LED

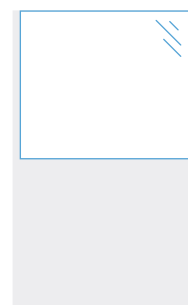
80

Spot LED
square

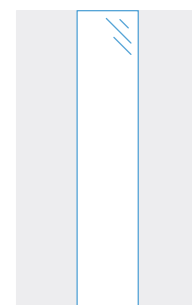
80



Mirrors



Mid-height mirror*



Height mirror**

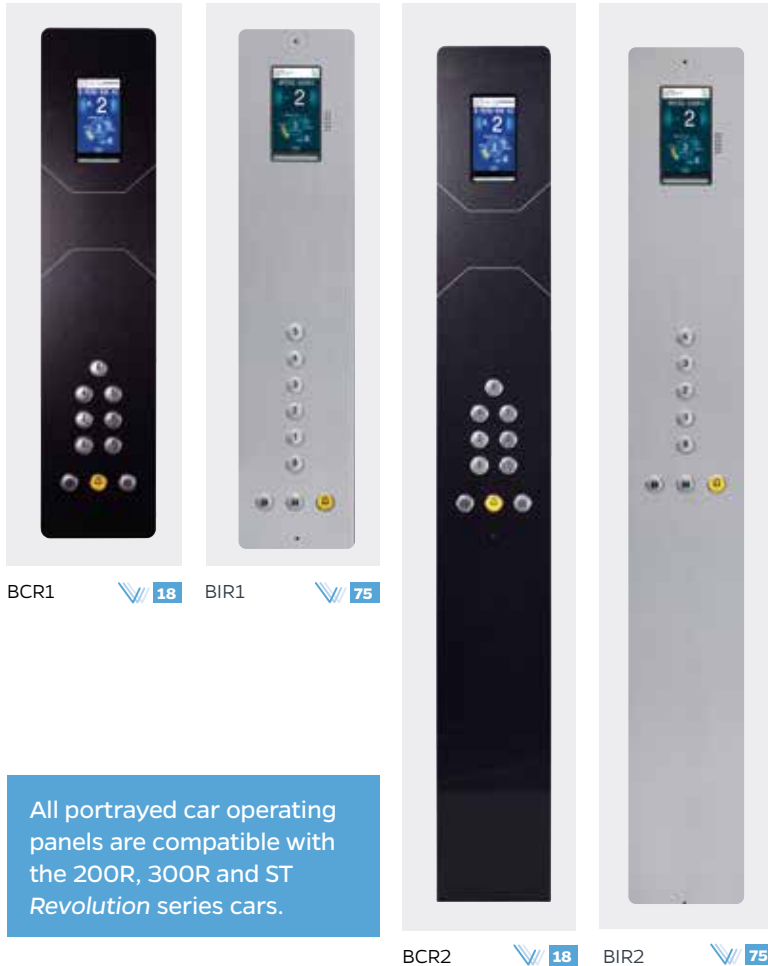
*Wide safety mirror from above the
handrail to the ceiling

** Tall safety mirror from skirting level to
the ceiling



Car operating panels, landing push stations & indicators

Car operating panels



All portrayed car operating panels are compatible with the 200R, 300R and ST Revolution series cars.

Car push-buttons



* Stainless steel push buttons with tactile legend and Braille (EN81-70 compliant).

** For BIR1 and BIR2 panels only.

*** Push buttons US91, 10 floor limit.

Car display



Smarttech (7")

Landing Push Stations

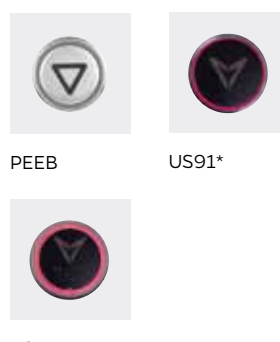


* Push buttons installed directly in the door frame.

** Flush mounted on door frame.

*** Surface mounted on door frame.

Landing push buttons



* Only for BER2 push station.

** Only for BER2 and BER3 push stations

Landing indicators



Display Smarttech HR*

HLER - Cabina**



FERV

*Option EN81-70: with "next direction arrow" and gong

** EN81-70

Lift car Smartech display



Lift availability before travel. The screen tells you if the lift is available for use.

Smartech AutoTest Function. Checks and displays the correct functioning of the safety components and system before the start of each journey.

Position & direction. Shows the location of the lift within the building at all times, as well as direction of travel.

Destination floor & time remaining before arrival. Indicates the floor to which the lift is travelling and the time remaining before arrival, expressed in seconds.

Speed. Passengers are kept informed in real time of the car's speed on each journey, from departure until arrival at the destination floor.

Energy consumption. Indicates if the lift is consuming energy or generating it during travel, thereby reducing the building's operating costs.

Arrival at destination floor alert. Informs passengers when the lift reaches the destination floor.

Date & time. Displays the time and date in real time.

Load & passenger capacity. Indicates the maximum permissible load, in kilograms, and the maximum number of passengers that can travel in the lift car.

Landing Smartech HR display*

*Optional



INCLUDES
VOICE
SYNTHESISER!

Welcome messages. The screen greets passengers with messages corresponding to the particular time of day.

Position & direction. Indicates to passengers waiting on a landing the location of the car and its direction of travel in real time.

Flashing LED display by the lift entrance. Alerts passengers to the imminent arrival of the lift.

Situation reports. The display transmits relevant information to passengers: such as when there are too many people in the lift car, when the lift door is blocked and when people are entering or leaving the car, among others.

Lift arrival countdown. The display shows a progress bar and countdown in seconds, accurately updated in real time, so that passengers know exactly when their lift will arrive.

Energy consumption. Indicates if the lift is consuming energy or generating it during travel, thereby reducing the building's operating costs.

Voice messages. The screen device shares travel information with passengers via a voice synthesiser built into the door frame. Its volume is automatically adjusted according to the particular time of day.

Altamira II control system: Silens Pro's® brain.

The **Altamira II** control system has been completely designed and manufactured by **IMEM Lifts** alone. It was conceived to control, with maximum precision, all the actions of any lift or group of lifts in the **Silens Pro®** range.

It offers all the advantages of a CAN BUS communication system, controlling groups of up to 8 lifts, 64 stops and speeds of 5 m per sec.

Altamira 2 is ready to solve, in a simple way, both the most common functions and the most complex and sophisticated, avoiding traditional electro-mechanical solutions.

01

Seamless integration for perfect performance

- **Altamira II** is fully integrated with the mechanisms of the entire **Silens Pro®** lift range. Therefore, in a **Silens Pro®** lift, the mechanical and the electrical act as one to provide exceptional functionality and performance.
- **Altamira II** minimises the sensors and components required, making it possible to utilise space to the maximum. It provides optimum travel comfort for the lift and reduces electrical consumption.
- As electrical and mechanical manufacturers we not only offer our customers lifts that provide integrated electrical and mechanical solutions with perfect compatibility: we also offer integral technical support to our customers, saving time and providing efficient support throughout the lifecycle of our lifts.

02

Easy and quick installation

- **Altamira II** is supplied pre-assembled, pre-connected and pre-tested which simplifies installation and minimises any margin of error.
- Perfectly configured variator and machine operating patterns match the operation of **Altamira II** with the mechanics of every **Silens Pro®** (Top, Compact, Vanguard and Mega).
- Installation times are reduced thanks to the almost complete elimination of traditional sensors and magnets.
- **Altamira II** integrates software that allows a single person to perform a levelling operation in minutes and from inside the lift car.
- The control cabinet can be installed flexibly anywhere in the building up to a maximum distance of 20 metres from the drive motor*.

*There are versions where the control cabinet can be located more than 20 m from the drive motor. In each case, please check with us.



Smart City by IMEM®

As a Silens Pro® user, you will have access to the Smart City® ecosystem of digital tools.

This system enables you to manage your equipment, track scheduled maintenance tasks and receive periodic reports.

The diagram illustrates the Smart City by IMEM ecosystem. It features a central circle labeled 'SMART CITY by IMEM' with a Wi-Fi symbol. This central hub is connected to four surrounding circles: 'DIGITAL REPORTING' (top left), 'IMEM CLOUD' (top right), 'VIRTUAL OFFICE' (bottom left), and 'APP IMEM LIFE' (bottom right). Each circle contains a specific icon representing its function. The background shows a woman looking at a smartphone, suggesting the user interface of the system.

Your lift connected to the future

Your Silens Pro® lift will soon be compatible with the IMEM Cloud® connectivity kit. Thanks to the system, your elevator is connected to the Internet 24 hours a day, 365 days a year. **The aim: to achieve maintenance excellence with a tool that transmits everything that happens on the machine to the technical service in real time, and to offer passengers a constantly evolving user experience.**



Increased uninterrupted elevator uptime thanks to enhanced remote monitoring capabilities.



Reduced incident resolution times.



Enhanced user experience thanks to infinite updates and connection to other devices.



Anticipation of incidents thanks to predictive maintenance.



Operational and service functions

✓ Direct approach

The lift approaches the floor with no intermediate speeds to stop gently at the floor level. The position of the car is calculated at all times without the need for magnets.

✓ Return Mode

The cab returns to the return floor if it is below it or when there are no more orders or pending calls. You can set any floor as the return floor.

✓ Max. car registration

Maximum number of car registrations.
Vandal proof function.

✓ Fire control

In the event of a fire, a control is activated that sends the lift to the fire emergency floor. If the lift is going away from the fire emergency floor, it will stop at the first possible stop and without opening the doors, it will return to the fire emergency floor. If the lift is going in the direction of the fire emergency floor, it will not stop until it arrives at that floor. This complies with EN81.73.

When this movement is completed, it can return to normal operation by means of reset or not.

✓ Fire fighting movement - EN81.72-

When this movement is completed, it can return to normal operation by means of reset or not. This movement complies with EN81.72. Available for Australian standard.

✓ Non-stop movement on floors with fire

This prevents the lift stopping at a floor where fire has been detected. If this signal is activated the lift stops at this floor, the car stays with the doors closed and it goes to another floor.

When this movement is completed, it can return to normal operation by means of reset or not.

✓ Out of service

This allows the lift to be left out of service, either at a particular stop or on the first floor where it can stop.

✓ Independent service

The lift only attends to orders that are registered from the car operating panel.

✓ Full load signal

The lift does not answer calls from outside if it is fully loaded.

✓ Car Light Timing

This allows you to set the time when the car light is turned off. It is deactivated once the doors are closed.

✓ Car fan

There is a timer to activate/deactivate the fan.

✓ Automatic detection of water in the pit

Detects the presence of water in the pit, forcing the elevator to stop at intermediate or upper floors.

✓ ECOSAVER®

Regenerative system that recovers and stores the energy generated by the lift, so that it can be used at a later time, reducing total energy consumption.

✓ Seismic - EN81.77 -

Operation according to EN81.77.

✓ Anti-surfing

This allows secure access to the car roof so the lift cannot be used for vandal purposes.

✓ Stand-by

This allows the lift to reduce power consumption when not in use.

✓ Standard function

✓ Optional function



Multiple movement functions

- ✓ **Multiple**
A group of up to 8 lifts can be controlled.
- ✓ **Disabled movement**
This allows operation of multiple system of lifts with different amount of floors.
- ✓ **Limit out of service**
Parameter to configure the number of warnings detected in the doors before putting a lift out of service. When this happens, other lifts of the system will deal with the landing calls.
- ✓ **Multiplex input traffic**
This establishes a time period in which there is a lot of traffic entering the building from a certain floor and tries to facilitate the management of the multiple system to reduce the times that users wait for an available car.
- ✓ **Multiple system output traffic**
This identifies a time period in which high passenger traffic from a certain floor has been registered, in order to reduce waiting times



Door operation functions

- ✓ **Fast closing of doors**
This allows the time between stops to be shortened by means of a button in the car that can be activated if there are car orders.
- ✓ **Door hold**
Key in the car operating panel that keeps the door open as if it were a photocell.
- ✓ **Nudge**
The doors close slowly in the event of a prolonged interruption of the safety edge, notifying the persons in the car visibly and/or acoustically.
- ✓ **Safety edge**
Safety edge according to EN81.20
- ✓ **Self-diagnosing safety edge**
Autodiagnosis of the safety edge in which the door sensors are automatically checked.



Signage and display functions

- ✓ **Departure Gong, ascending and descending tones - EN81.70 -**
Activates a sound with an ascending scale for ascent and a descending scale for descent.
- ✓ **Overload function**
The display gives a visual and audible indication to the users of overloading inside the car.
- ✓ **Voice synthesizer**
This is a voice synthesizer that emits informative messages concerning the operation of the lift.



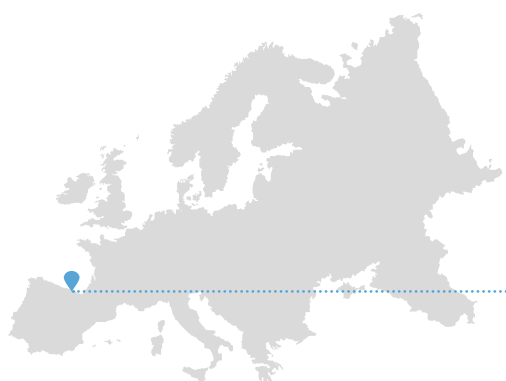
Emergency operation functions

- ✓ **Auto-rescue**
Automatic rescue in electric lifts by means of UPS including the opening of doors when the designated floor has been reached. It has a pre-programmed destination floor.
- ✓ **Manual rescue**
Manual rescue can be of two types, one by braking and displacement of the car according to the load balance or by means of high power UPS and direction pushbuttons that raise or lower the lift.
- ✓ **Emergency light cockpit button**
In the event of a power cut, an emergency light is switched on in the car operating panel which provides illumination in compliance with EN81.20.
- ✓ **Emergency ceiling light in car**
In the event of a power cut, an emergency light is switched on in the car ceiling which provides lighting in compliance with EN81.20 for 2 hours.

- ✓ **Standard function**
- ✓ **Optional function**



Designed and manufactured in Europe



- ✓ All the products we design are produced entirely in-house in our own European factories – ever since 1968.
- ✓ Meeting all the European quality standards.
- ✓ Particularly regarding safety, sustainability and environmental care.



ER-0426/1997



GA-2008/0458



SST-0008/2008



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