# Silens**pro**®



Silens Pro® Machine-roomless lifts

# Silenspro®

**Silens Pro**<sup>®</sup> 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.



#### Office buildings

Office buildings 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.



### **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



#### **Industry**

Robust, durable, reliable and durable, Silens Pro Mega® is a lift designed to offer the best performance carrying large loads in industrial facilities



# One range: all solutions Introducing the Silens Pro® range: the most advanced MRL highperformance 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.





# Ouiet, efficient and ecological traction

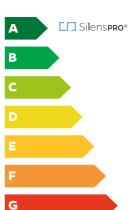
The Silens Pro® range of lifts is equipped with stateof-the-art, eco-friendly, energy-efficient, compact and durable permanent magnet gearless motors.



# 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: AAAAA.





### Unbeatable travel comfort

A Silens Pro® lift always provides the passenger with a unique travel experience characterised by smooth and guiet 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**<sup>®</sup> 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.

#### Checked cars

Each of our cars is assembled, tested and dismantled in our factory before shipment, so as to guarantee perfect assembly.

### 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.



# 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.

# We consider **economic**, **social and environmental sustainability** as an essential reference for our business

### Sustainable Manufacturing

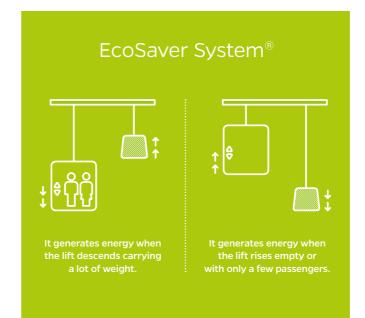
**Silens Pro**<sup>®</sup> lifts are designed and manufactured in accordance with the most modern and sustainable production processes.

- 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<sup>®</sup>, 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**<sup>®</sup> lift capable of providing an ideal solution.

# A **Silens Pro**<sup>®</sup> for every need

The **Silens Pro**® range covers a range of loads from 300 kg to 4000 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 2100 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**<sup>®</sup> 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.











**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** 

### Russia

**PUBEL PB 10-558-03** 



# Silens Pro® Range



















Load (Kg)	300-630	300-630	750-1000	630-1000
Max. speed	1 m/s	1 m/s	1 m/s	1.6 m/s
Minimum pit	1050mm	350mm	1050mm	1300mm
Headroom	3400mm	2700mm	3400mm	3800mm
Roping	2:1	2:1	2:1	2:1
Entrances	0° and 180°	0°, 90° and 180°	0° and 180°	0° and 180°
Sling type	Conventional pulleys above	Rucksack frame	Conventional pulleys above	Conventional pulleys above













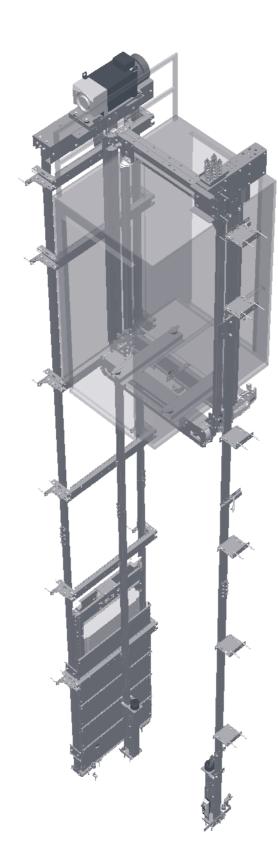
Load (Kg) 750-1275 1275  Max. speed 1 m/s 1 and 1.6 m/s	1350-4000
Max speed 1 m/s 1 and 16 m/s	1 1 / -
111/3	1 and 1.6 m/s
Minimum pit 1200mm 1300/1400mm	1300/1400mm
Headroom 3450 mm (Below load beam) 3600/3850mm	3600/4200mm
Roping 2:1 2:1	2:1 - 4:1
<b>Entrances</b> 0°, 90° and 180° 0° and 180°	0° and 180°
Sling type Rucksack frame (V) Conventional pulleys ab	pove Conventional pulleys above



# 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 new 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	210, 310, 350, 550, 710 Series
Car and landing doors	600, 700, 800, 900 mm
Maximum travel	60 m



ຖືຖື RATED LO	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	1350	1225				
2/180°	850	1000	1350	1325				
1/0°	800	1050	1300	1275	3400	1050	Side opening	
2/180°	800	1100	1300	1425	3400	1050	2H 700	
1/0°	900	950	1400	1175				
2/180°	900	1000	1400	1325				

ື່ nated Lo	DAD • <b>375kg</b>	/ 5 people		ROPING	· 2:1	M M	AXIMUM S	PEED · 1 m/s
Entrances		ar		Shaft	Headro	om**	Dia.	Door type
Angle	Width (A)	Depth (B)	Width (C	) Depth* (D)	CH 2200		Pit	Maximum
1/0°	800	1250	1300	1475				
2/180°	800	1250	1300	1580				
1/0°	850	1200	1350	1425	240	_	1050	Side opening
2/180°	850	1200	1350	1530	340	U	1050	2H 700
1/0°	900	1100	1400	1325				
2/180°	900	1100	1400	1430				

ក្លំក្លុំ RATED LC	AD • <b>450kg</b>	/ 6 people	<u>(</u>	ROPING	2:1	(I) M	AXIMUM S	SPEED · 1 m/s
Entrances	_	ar	-	naft	Headro	om**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 220			Maximum
1/0°	950	1250	1450	1475				
2/180°	950	1250	1450	1580				
1/0°	1000	1200	1500	1425	240	10	1050	Side opening 2H
2/180°	1000	1200	1500	1530	340	10	1050	800
1/0°	1000	1250	1500	1475				
2/180°	1000	1250	1500	1575				

Entrances	_	ar	-	aft	Headroom <sup>3</sup>	**	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mr	n Pit	Maximum
1/0°	1100	1400	1600	1675			Side opening
2/180°	1100	1400	1600	1775	2400	1050	2H 800
1/0°	1100	1400	1600	1675	3400	1050	Side opening
2/180°	1100	1400	1600	1775			2H 900

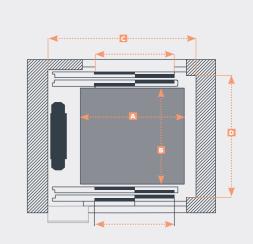
### Operational ranges (standard mechanics)

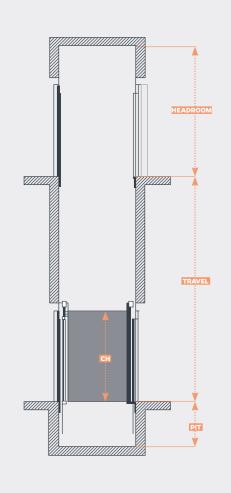
Maximum travel	Up to 60 m	
	Pit	Standard minimum: 1050 mm
Shaft	Headroom	Standard minimum (2200 mm) car: 3400 mm Reduced minimum (2050 mm car): 3250 mm
	Minimum width	Car width + 500 mm
	Minimum depth	Single entrance: 950mm Double entrance: 1000mm
	Maximum depth	1500 mm
Car	Minimum width	800 mm
	Maximum width	1300 mm
	Standard height	2200 mm (options from 2050 mm to 2300 mm in increments of 50 mm)

Minimum shaft and car dimensions Standard car dimensions Car EN81-70

- \* According to the door and opening type.

  \*\* Headroom option reduced by 3250 mm with 2050 mm car.



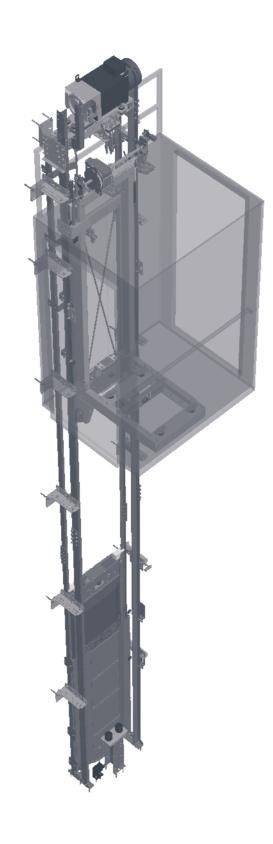




# The solution for restricted spaces

- 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 new 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	210, 310, 350, 550, 710 Series
Car and Landing Doors	600, 700, 800, 900 mm
Maximum travel	40 m



### Side-mounted system

		/ 4 people	ţ.	ROPING .	2:1	( )	MAXIMUM S	PEED · 1 m/s
Entrances	C	ar	Sh	aft	Headro	om**		Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 220	0mm	Pit	Maximum
1/0°	850	1000	1300	1240				Cide en enio
2/180°	850	1000	1300	1330	340	0	1050	Side openin 2H PL700
2/90°	850	1000	1400	1340				
, Ĉ RATED LO	OAD • <b>375kg</b> ,	/ 5 people	Co	ROPING •	2:1		MAXIMUM S	PEED · 1 m/s
Entrances	c	ar	Sh	aft	Headroo	m**		Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200	mm	Pit	Maximum
1/0°	900	1100	1350	1340				e: I .
2/180°	900	1100	1350	1430	3400	)	1050	Side opening 2H PL700
2/90°	900	1100	1450	1340				ZH PL/00
<b>Entrances</b> Angle	Ci Width (A)	•		aft Depth* (D)	Headroo		Pit	Door type
		Deptil (D)			C112200	ווזווווע		Maximum
1/0°	1000	1200	1450	1440	CITZZOC	JITIITI		Maximum
1/0° 2/180°					CITZZOC	ZITTITTI		Maximum
-	1000	1200	1450	1440			1050	
2/180°	1000 1000	1200 1200	1450 1450	1440 1530	3400		1050	
2/180° 2/90° 1/0° 2/180°	1000 1000 1000	1200 1200 1200	1450 1450 1550	1440 1530 1500			1050	Side opening
2/180° 2/90° 1/0°	1000 1000 1000 1000	1200 1200 1200 1250	1450 1450 1550 1450	1440 1530 1500 1490			1050	Side opening
2/180° 2/90° 1/0° 2/180° 2/90°	1000 1000 1000 1000 1000	1200 1200 1200 1250 1250 1250	1450 1450 1550 1450 1450	1440 1530 1500 1490 1580	3400			Side opening
2/180° 2/90° 1/0° 2/180° 2/90°	1000 1000 1000 1000 1000 1000	1200 1200 1200 1250 1250 1250 1250	1450 1450 1550 1450 1450 1550	1440 1530 1500 1490 1580 1500 ROPING •	3400 2:1 Headroo	om**	MAXIMUM S	Side opening 2H PL800 SPEED • 1 m/s Door type
2/180° 2/90° 1/0° 2/180° 2/90°	1000 1000 1000 1000 1000 1000	1200 1200 1200 1250 1250 1250 1250	1450 1450 1550 1450 1450 1550	1440 1530 1500 1490 1580 1500	3400 <b>2:1</b>	om**		Side opening 2H PL800
2/180° 2/90° 1/0° 2/180° 2/90°	1000 1000 1000 1000 1000 1000	1200 1200 1200 1250 1250 1250 1250	1450 1450 1550 1450 1450 1550	1440 1530 1500 1490 1580 1500 ROPING •	3400 2:1 Headroo	om**	MAXIMUM S	Side opening 2H PL800
2/180° 2/90° 1/0° 2/180° 2/180° 2/90° RATED LO Entrances Angle	1000 1000 1000 1000 1000 1000 1000	1200 1200 1200 1250 1250 1250 1250 / 8 people	1450 1450 1550 1450 1450 1550	1440 1530 1500 1490 1580 1500 ROPING •	3400 2:1 Headroo	O	MAXIMUM S	Side opening 2H PL800 SPEED • 1 m/s Door type

### Rear-mounted system

	)AD • <b>300kg</b>	/ 4 people	ů	ROPING •		(=)	IVII) (O (IIIVI O IVI	SPEED · 1 m/s
<b>Entrances</b> Angle		Depth (B)		Depth* (D)	Headro CH 220		Pit	<b>Door type</b> Maximum
1/0°	1000	850	1230	1425	340	00	1050	Central 4H PL700
n RATED LC	)AD • <b>375kg</b> /	/ 5 people	<u>C</u>	ROPING •:	2:1		MAXIMUM	SPEED · 1 m/s
<b>Entrances</b> Angle	Width (A)	ar Depth (B)		Depth* (D)	Headro		Pit	<b>Door type</b> Maximum
1/0°	1100	900	1230	1475	340	00	1050	Central 4H PL700
n RATED LO	)AD • <b>450kg</b>	/ 6 people	Q <sub>Q</sub>	ROPING •:	2:1		MAXIMUM :	SPEED · 1 m/s
RATED LO  Entrances  Angle		ar		ROPING • 2	<b>2:1 Headre</b> CH 220	oom**	MAXIMUM :	SPEED · 1 m/s  Door type  Maximum
Entrances	c	ar		aft	Headro	oom** OOmm		Door type Maximum
Entrances Angle 1/0°	C Width (A)	Depth (B)	Width (C)	Depth* (D)	<b>Headr</b> CH 220	00m** 00mm	Pit 1050	Door type Maximum
Entrances Angle 1/0°	Width (A) 1200  AD • 630kg	Depth (B) 1000 / 8 people	Width (C)  1360	Depth* (D)	<b>Headr</b> CH 220	00m**	Pit 1050	Door type Maximum Central 4H PL800

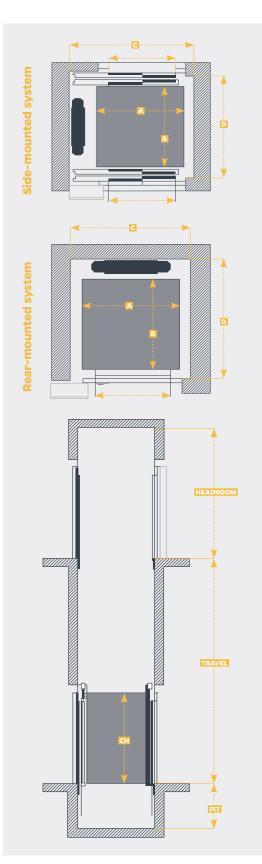
### Operational ranges (standard mechanics)

Maximum travel	Up to 40 m	<b>-</b>	
			Standard minimum: 1050 mm (EN81-20)
	Pit		Reduced minimum EN81-21: 350 mm
			Reduced minimum: 375 mm (with floor thickness of 25 mm
Shaft			Standard minimum (2200 mm) car: 3400 mm
	Headroom		Reduced minimum (2050 mm car): 3250 mm
			Reduced minimum EN81-21 with car 2000 mm: 2700 mm
	Minimum width		Car width + 450 mm (Side mechanics)
		Minimum depth	650 mm
	Mechanics	Maximum depth	1600 mm
	Lateral	Minimum width	700 mm
		Maximum width	1200 mm
_		Minimum depth	700 mm
Car	Mechanics	Maximum depth	1200 mm
	Depth	Minimum width	800 mm
		Maximum width	1600 mm
	Chandand baimbe		2200 mm (options from 2000 mm to 2300 mm in
	Standard height		increments of 50 mm)

Minimum shaft and car dimensions

Standard car dimensions

- Car EN81-70
- According to the door and opening type.
   Headroom option reduced by 3250 mm with 2050 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

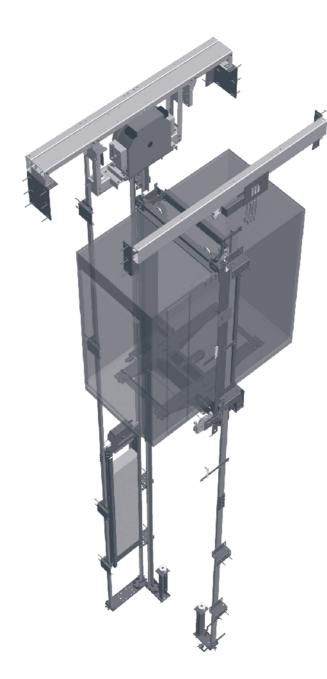




# The solution for medium to high traffic buildings

- 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 new 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	210, 310, 350, 550, 710 Series
Car and Landing Doors	800, 900, 1000 or 1100 mm
Maximum travel	40 m



ຶ່ງ RATED LO	)AD • <b>750kg</b>	/ 10 people	<u>Q</u>	ROPING .	2:1 ① N	MUMIXAN	SPEED · 1 m/s	
Entrances	_	Car		aft	Headroom**	Pit	Door type	
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum	
	1100	1600	1600	1875			Side opening 2F	
1.100	1300	1400	1800	1675				PL900
1/0°	1100	1600	1950	1850			Central opening	
	1300	1400	1950	1675	2400	1050	2H PL900	
	1100	1600	1600	2000	3400	3400 1050		
2 /180°	1300	1400	1800	1800			PL900	
2/100°	1100	1600	1950	1975			Central opening	
	1300	1400	1950	1775			2H PL900	

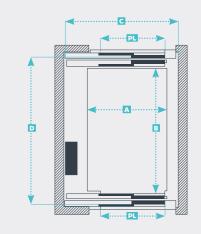
Entrances		ar		aft	Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C) Depth* (D) CH 2200mm		Maximum		
	1100	2100	1600	2375			Side opening 2H PL900
1/0°	1600	1400	2100	1675			Side opening 2F PL1100
	1100	2100	1950	2375			Central opening
	1600	1400	2100	1700		1050	2H PL900
	1100	2100	1600	2500	3400	1050	Side opening 2F PL900
2 /180°	1600	1400	2100	1800			Side opening 2F PL1100
	1100	2100	1950	2475			Central opening
	1600	1400	2125	1775			2H PL900

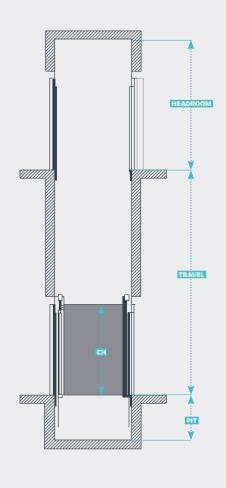
RATED LOAD · 1000kg / 13 people ROPING · 2:1 MAXIMUM SPEED · 1 m/s

#### Standard shaft and car dimensions

- \* According to the door and opening type.
- \*\* Option for reduced headroom of 3250 mm with car of 2050 mm.
- \*\*\* For lifts with marble floors or panoramic cars, check pit and headroom.

For lifts with reduced car, consult pit and headroom.





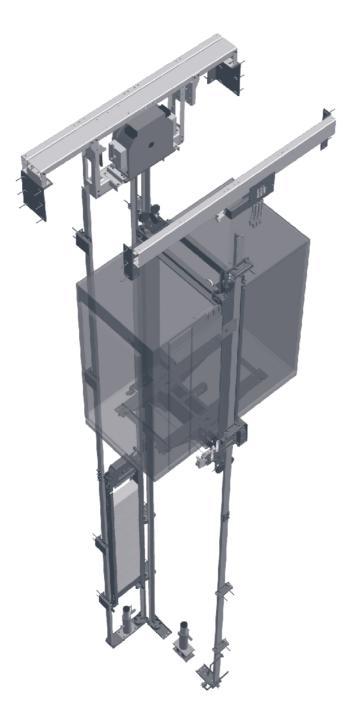
Maximum travel	Up to 40 m	
	Pit	Standard minimum: 1050 mm
Shaft	Headroom	Standard minimum (2200 mm) car: 3400 mm Reduced minimum (2050 mm car): 3250 mm
	Minimum width	Car width + 500 mm
	Minimum depth	1400 mm
	Maximum depth	2100 mm
Car	Minimum width	1000 mm
	Maximum width	1650 mm
	Standard height	2200 mm (2050 mm and 2100 mm option)



# 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 new 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	210, 310, 350, 550, 710 Series
Car and Landing Doors	800, 900, 1000 or 1100 mm
Maximum travel	60 m



ဂိုဂို RATED LO	ATED LOAD • 630kg / 8 people POPING • 2::			<b>2:1</b>	1 MAXIMUM SPEED · 1.6 m/s			
Entrances	-	Car		naft	Headroom**	Pit	Door type	
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm	CH 2200mm	Maximum	
1.00	1100 1400 1650 1700		Side opening 2H PL900					
1/0°	1100	1400	1950	1700	2000	1200	Central opening 2H PL900	
2/1000	1100	1400	1650	1850	3800	3800 1300		
2/180°	1100	1400	1950	1850		Central opening		

ROPING • 2:1

RATED LOAD • 750kg / 10 people

MAXIMUM SPEED · 1.6 m/s

ROPING • 2:1 (1) MAXIMUM SPEED • 1.6 m/s

<b>Entrances</b> Angle	Car			aft	Headroom**	Pit	Door type	
	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum	
	1100	1600	1650	1875			Side opening	
1/00	1300	1400	1850	1675				2H PL900
1/0°	1100	1600	1950	1850			Central openin	
	1300	1400	1950	1675	3800	1300	2H PL900	
	1100	1600	1650	2000	3800	1300	Side opening	
2/1900	1300	1400	1850	1800			2H PL900	
2/180°	1100	1600	1950	1975			Central openin	
	1300	1400	1950	1775			2H PL900	

Entrances	_	Car		naft	Headroom**	Pit	Door type
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
	1100	2100	1650	2375			Side opening 2H PL900
1/0°	1600	1400	2150	1675			Side opening 2H PL1100
	1100 1600	2100 1400	1950 2150	2375 1700			Central openin 2H PL900
	1100	2100	1650	2500	3800	1300	Side opening 2H PL900
2/180°	1600	1400	2150	1800			Side opening 2H PL1100
	1100	2100	1950	2475			Central openin
	1600	1400	2175	1775		_	2H PL900

### Operational ranges (standard mechanics)

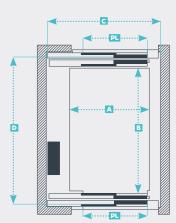
Maximum travel	Up to 60 m	
	Pit	Standard minimum: 1300 mm
Shaft	Headroom	Standard minimum (2200 mm) car: 3800 mm Reduced minimum (2050 mm car): 3650 mm
	Minimum width	Car width + 550 mm
	Minimum depth	1400 mm
	Maximum depth	2100 mm
Car	Minimum width	1000 mm
	Maximum width	1650 mm
	Standard height	2200 mm (2050 mm and 2100 mm option)

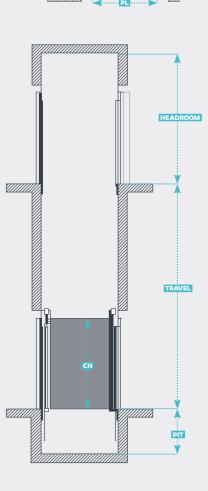
#### Car EN81-70

Standard shaft and car dimensions

- \* According to the door and opening type.
- \*\* Headroom option reduced by 3650 mm with 2050 mm car.
- \*\*\* For lifts with marble floors or panoramic cars,

For lifts with reduced car, consult pit and UP.



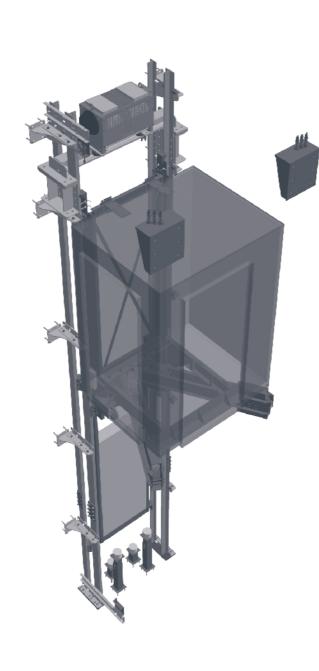




# The flexible solution for the commercial sector

- 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<sup>®</sup> 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 new standards EN81-20 and EN81-50.

Load	750-1275 kg
Rated speed	1 m/s
Openings	Single Double access 90°-180° Triple access
Control system	Altamira II
Cars	210, 310, 350, 550, 710 Series
Car and Landing Doors	800, 900, 1000 or 1100 mm
Maximum travel	40 m

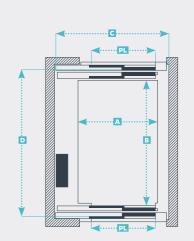


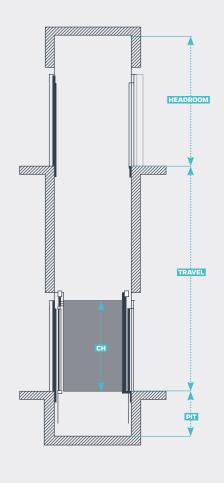
	c	ar	Sh	aft				
Entrances Angle		Width (A) Depth (B)		Width (C) Depth* (D)		Headroom** CH 2200mm		<b>Door type</b> Maximum
	· · · · · · · · · · · · · · · · · · ·	Depart ( <b>D</b> )	**************************************	Depth (D)				
2/000	1100	1600	1050 1000		3450 be	3450 below the		Side opening 2H PL900
2/90°	1100	1000	1850	1900	load-bearing beam		1200	Side opening 3H PL900
RATED LO	AD • <b>1000kg</b>	/ 13 people	Q Q	ROPING.	2:1	(I) MAX	MUM SP	EED · <b>1 m/s</b>
u .	Ť	/ 13 people	٠	ROPING •				
RATED LO.  Entrances  Angle	Ť		٠	1	<b>2:1 Headr</b> CH 220	oom**	MUM SP	EED · <b>1 m/s</b> Door type  Maximum

n RATED LOAD • 1275kg / 17 people			<u> </u>	ROPING •	2:1	MAXIMUM SPEED · 1 m/s		
Entrances Ca		ar		naft		oom**	Pit	Door type
Anale	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum	
1/0°			1850	2600				Side opening
2/180°			1850	2700				2H PL1100
2/000			1950	2600				Side opening 2H PL1000
2/90°	1200	2300	1950	2600		elow the ring beam	1200	Side opening 3H PL1100
1/0°			2350	2600				Central openin
2/180°			2350	2700				2H PL1100
2/90°			2000	2600				Central openin 4H PL1100

#### Standard shaft and car dimensions

- \* According to the door and opening type.
- \*\* Option for reduced headroom option of 3300 mm below load-bearing beam with 2050mm car





Maximum travel	Up to 40 m					
	Pit	Standard minimum: 1200 mm				
Shaft	Headroom	Standard minimum (2200 mm) car: 3450 mm Reduced minimum (2050 mm car): 3300 mm				
	Minimum width	Car width + 650 mm				
	Minimum depth	1400 mm				
	Maximum depth	2500 mm				
Car	Minimum width	1000 mm				
	Maximum width	1600 mm				
	Standard height	2200 mm (2050 mm and 2100 mm option)				



# The efficient solution for large loads

- The Silens Pro Vanguard IV® is a machine-roomless lift with permanent magnets gearless traction, ideal for shopping centres, hospitals, hotels or other facilities between 40 and 60 metres in height.
- The Silens Pro Vanguard IV<sup>®</sup> is a robust, reliable and highly durable lift.
- It incorporates a gearless motor which is ecological, compact, lightweight and designed to occupy as little space as possible inside the 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 new standards EN81-20 and EN81-50.

Load	1275 kg
Rated speed	1 m/s · 1.6 m/s
Openings	Single Double 180° access
Control system	Altamira II
Cars	210, 310, 350, 550, 710 Series
Cars Car and Landing Doors	210, 310, 350, 550, 710 Series 800, 900, 1000 or 1100 mm
	-,,,,



ဂ္ဂိဂ္ဂိ RATED LOA	\D • <b>1275kg</b>	/ 17 people		ROPING •:	2:1 ① MA	MAXIMUM SPEED · 1 m/s			
Entrances	Car		Shaft		Headroom**	Pit	Door type		
Angle	Width (A)			Depth* (D)	CH 2200mm		Maximum		
1.100			2800	1700			Side opening 2H PL1100		
1/0°	2000	1400	2800	1675	2000	1200	Central opening 2H PL1100		
2/1900	2000	2000 1400	2800	1800	3600	1300	Side opening 2H PL1100		
2/180°			2800	1775			Central opening 2H PL1100		

} RATED LOA	AD • <b>1275kg</b>	/ 17 people	40+	ROPING · 2	<b>#1</b> (1) MAX	KIMUM SPI	EED · <b>1.6 m/s</b>							
Entrances	c	Car		naft	Headroom**	<b></b>	Door type							
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm	Pit	Maximum							
1/0°			2000	2600			Side opening							
2/180°	1200	2200	2000	2700			2H PL1100							
1/0°	1200	2300	2350	2600			Central opening							
2/180°			2350	2650			2H PL1100							
				2800	1700			Side opening						
1/0°					3850	1400	2H PL1100							
	2000	1400	1400 -	1400	1400	1400	1400	1400	1400	2800	1675			Central opening 2H PL1100
2/1000	2000			2800	1800			Side opening 2H PL1100						
2/180°			2800	1775			Central opening 2H PL1100							

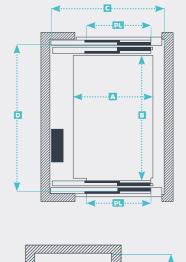
#### Car EN81-70

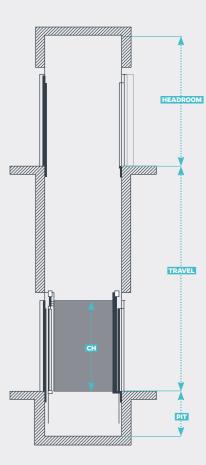
Standard shaft and car dimensions

- \* According to the door and opening type.
- \*\* Option for reduced headroom of 3450 mm above the load-bearing beam with 2050 mm cab

Operational	ranges	(standard	mechanics)

Maximum travel	Ns = 1 m per sec up to 40 m Ns = 1.6 m per sec up to 60 m					
		Standard minimum				
	Pit	1300 mm (Ns = 1 m/s)				
		1400 mm (Ns = 1.6 m/s)				
		Standard minimum (2200 mm) car:				
Hueco		3600 mm (Ns = 1 m/s)				
	Headroom	3850 mm (Ns = 1.6 m/s)				
	Headroom	Reduced minimum (2050 mm car):				
		3450 mm (Ns = 1 m/s)				
		3700 mm (Ns = 1.6 m/s)				
	Minimum width	Car width + 800 mm				
	Minimum depth	1400 mm				
	Maximum depth	2600 mm				
Car	Minimum width	1100 mm				
	Maximum width	2000 mm				
	Standard height	2200 mm (2050 mm and 2100 mm option)				





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# The most robust solution for heavier loads

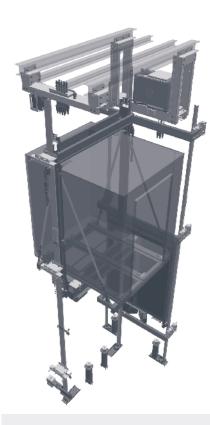
- The Silens Pro Mega<sup>®</sup> is a machine-roomless lift with permanent magnets gearless traction, ideal for transporting large loads in all types of buildings between 30 and 60 metres of height.
- Silens Pro Mega® is an extremely robust and durable lift, equipped with strengthened cars designed to carry heavy loads.
- It incorporates a gearless motor which is silent, environmentally friendly, compact and light, designed to occupy the smallest possible space inside a shaft.
- Loads from 1350 kg to 4000 kg.
- Speeds of 1 m per sec or 1.6 m per sec.
- 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 new standards EN81-20 and EN81-50

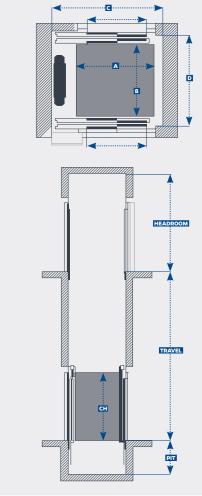
Load	1350-4000 kg
Rated speed	1 m/s · 1.6 m/s
Openings	Single Double 180° access
Control system	Altamira II
Control system  Cars	Altamira II 220 Series
Cars	220 Series

	_							
Entrances Angle	Width (A)	Depth (B)		Depth* (D)		room** 200mm	Pit	<b>Door ty</b> Maximu
	· ····································	Берит (в)	vvidti (C)	Deptil (D)				
1/0°			2100	2750				Side oper 2H PL11
2/180°			2100	2850		500 m/s)	1300 (1 m/s)	Side oper 2H PL11
1/0°	1200	2450		2750		350	1400	Central ope
2/180°			2450	2850	(1.6	m/s)	(1.6 m/s)	Central ope
•			7	<u> </u>			_	2H PL11
I∏ RATED LO	DAD • <b>1500k</b>	g / 20 peop	le	PROPING • 2:	1	(I) MAX	KIMUM SPEED	· 1 m/s · 1.6 m
<b>Entrances</b> Angle	Width (A)	•		Depth* (D)	Headre CH 220		Pit	Door typ Maximur
1/0°	widdi (A)	Deptil ( <b>b</b> )	vviatii (C)	2750				Side open
,			2200		36	00	1300	2H PL110 Side open
2/180°	1300	2450		2850	(1 n	n/s)	(1 m/s)	2H PL110
1/0°			2450	2750		3850 (1.6 m/s)	1400 (1.6 m/s)	Central ope 2H PL110
2/180°			2450 ————————————————————————————————————		(1.01			Central ope 2H PL110
n DATED I C								
A KAIED LC	DAD • <b>1600k</b>	g / 21 peop	le	ROPING • 2:	1	(I) MAX	KIMUM SPEED	1 m/s · 1.6 m
Entrances		g <b>/ 21</b> peop ar		ROPING • 2:		MA>		•
			SI	. 1	Headı		VIMUM SPEED	• 1 m/s • 1.6 m  Door ty
Entrances	C	ar	Sł Width (C)	naft	Headi CH 22	room**	Pit	Door ty Maximu Side oper
Entrances Angle	Width (A)	ar Depth (B)	SI	naft Depth* (D)	Headı CH 22	room**		Door ty Maximu Side oper 2H PL110 Side oper
Entrances Angle 1/0°	C	ar	Sł Width (C)	Depth* (D)	Headi CH 22 36 (1 r	room** 200mm 600 m/s)	1300 (1 m/s) 1400	Door tyl Maximu Side oper 2H PL11 Side oper 2H PL11 Central ope
Entrances Angle 1/0° 2/180°	Width (A)	ar Depth (B)	Sł Width (C)	Depth* (D)  2700  2800	Headi CH 22 36 (1 r	room** 200mm 500 m/s)	1300 (1 m/s)	Maximu Side oper 2H PL11I Side oper 2H PL11I Central ope 2H PL11I Central ope
Entrances Angle  1/0°  2/180°  1/0°  2/180°	Width (A)	Depth (B)	Si Width (C) 2300 2450	2700 2800 2700 2800	Headi CH 22 36 (1 r 38 (1.6	700m** 200mm 500 m/s) 850 m/s)	1300 (1 m/s) 1400 (1.6 m/s)	Door tyj Maximu Side oper 2H PL111 Central ope 2H PL111 Central ope 2H PL110
Entrances Angle  1/0°  2/180°  1/0°  2/180°  2/180°	Width (A)  1400  DAD • 2000k	2400 g / 26 peop	2300 2450	Depth* (D)  2700  2800  2700  2800  2800  700  700	Headi CH 22 36 (1 r 38 (1.6	700m** 100mm 500 m/s) 350 m/s)	1300 (1 m/s) 1400	Door tyl Maximu Side oper 2H PL11 Side oper 2H PL11 Central ope 2H PL110 Central ope 2H PL110
Entrances Angle  1/0°  2/180°  1/0°  2/180°	Width (A)	2400 g / 26 peop	2300 2450 le	2700 2800 2700 2800	Headi CH 22 36 (1 r 38 (1.6	000mm 000mm 000mm 000mm/s) 000mm/s) 000mm/s) 000mm/s	1300 (1 m/s) 1400 (1.6 m/s)	Door tyj Maximu Side oper 2H PL111 Central ope 2H PL111 Central ope 2H PL110
Entrances Angle  1/0°  2/180°  1/0°  2/180°  2/180°  C) RATED LO  Entrances	Width (A)  1400  DAD • 2000k	Depth (B)  2400  g / 26 peop	2300 2450 le	2700 2800 2700 2800 2700 2800 2800	Headle CH 22 366 (1 r 38 (1.6 Headle CH 22 Headle CH 22 Headle CH 24 H	000mm 000mm 000mm 000mm/s) 000mm/s) 000mm/s) 000mm/s	1300 (1 m/s) 1400 (1.6 m/s)	Door tyl Maximu Side oper 2H PL11 Side oper 2H PL11 Central ope 2H PL11 Central ope 2H PL11 Tm/s • 1.6 m Door typ Maximur
Entrances Angle  1/0°  2/180°  1/0°  2/180°  PATED LO  Entrances Angle	2000k OAD • 2000k Width (A)	Depth (B)  2400  g / 26 peopar  Depth (B)	2300 2450 le	2700 2800 2700 2800 2700 2800 2800 Depth* (D)	Headle CH 22 366 (1 r 38 (1.6 Headle CH 22 Headle CH 22 Headle CH 24 H	000m** 000mm 000m/s) 000m/s) 000m** 000m**	1300 (1 m/s) 1400 (1.6 m/s)	Door tyl Maximu Side oper 2H PL11 Side oper 2H PL11 Central ope 2H PL11 Central ope 2H PL11 Tm/s • 1.6 m
Entrances Angle  1/0°  2/180°  1/0°  2/180°  RATED LO  Entrances Angle  1/0°	Width (A)  1400  DAD • 2000k	Depth (B)  2400  g / 26 peop	2300  2450  Le Sh Width (C)	2700 2800 2700 2800 2800 2800 2800 2800	Headin CH 220  366 (1 r) 38 (1.6	000m** 000mm 000m/s) 000m** 000m** 000m** 000m**	1300 (1 m/s) 1400 (1.6 m/s)	Door typ Maximu Side oper 2H PL11i Central ope 2H PL12i Central ope 2H PL11i Central ope 2H PL11i Central ope 2H PL12i Side open 4 PL12i Side open 2H PL13i Side open

- \* According to the door and opening type
- \*\* Option for reduced headroom from 3450 mm for s = 1m per sec and 3700 mm for 1.6 m per sec with 2050 mm cab.

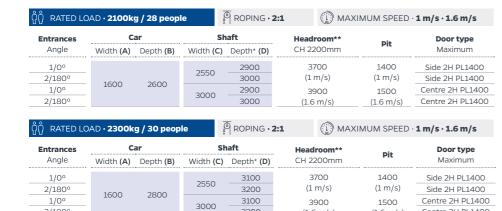
Maximum travel	Up to 60 m					
	Pit	Minimum standard: 1300 mm (Ns = 1 m per sec) · 1400 mm (Ns = 1.6 m per sec)				
		Standard minimum (2200 mm) car:				
		3600  mm (Ns = 1  m/s)				
Shaft	Headroom	3850 mm (Ns = 1.6 m/s)				
Snart	Headroom	Reduced minimum (2050 mm car):				
		3450 mm (Ns = 1 m/s)				
		3700 mm (Ns = 1.6 m/s)				
	Minimum width	Car width + 900 mm				
	Minimum depth	1400 mm				
	Maximum depth	2700 mm				
Car	Minimum width	1200 mm				
	Maximum width	2500 mm				
	Standard height	2200 mm (2050 mm and 2100 mm option)				







2/180°



ក្តុំក្តុំ RATED LO	DAD • <b>2500</b> k	g / 33 peop	le	ROPING • 2	2:1	IMUM SPEED	· 1 m/s · 1.6 m/s
<b>Entrances</b> Angle	Width (A)	ar Depth (B)	Sh Width (C)	Depth* (D)	Headroom** CH 2200mm	Pit	<b>Door type</b> Maximum
1/0°			2550	3300	3700	1400	Side 2H PL1400
2/180°	1600	3000	2550	3400	(1 m/s)	(1 m/s)	Side 2H PL1400
1/0° 2/180°			3000	3300	3900 (1.6 m/s)	1500 (1.6 m/s)	Centre 2H PL1400

3200

(1.6 m/s)

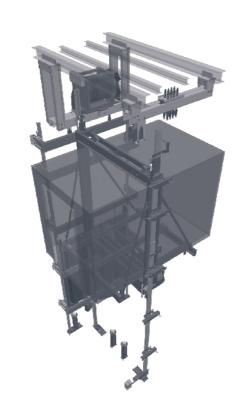
Ϋ́Ω RATED LO	∯∯ RATED LOAD • 2900kg / 38 people				2:1 (1) MAX	IMUM SPEED	UM SPEED · 1 m/s · 1.6 m/s									
Entrances	Car		Shaft		Headroom**	Pit	Door type									
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm	- PIL	Maximum									
1/0°			2700	3300	3700	1400	Side 2H PL1500									
2/180°	1750	50 3000 —		2000	2000	2000	2000	2000	2000	2000	2000	2/00	3400	(1 m/s)	(1 m/s)	Side 2H PL1500
1/0°	1/50		3000	3300	3900	1500	Centre 2H PL1400									
2/180°			3000	3400	(1.6 m/s)	(1.6 m/s)	Centre 2H PL1400									

ဂိုဂို RATED LOAD • <b>3000kg / 40 people</b>				ROPING • 2	2:1 (I) MAX	MAXIMUM SPEED · 1 m/s · 1.6 m/s		
Entrances	ntrances (		Sh	naft	Headroom**	Pit	Door type	
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum	
1/0°			2750	3325	3700	1400	Side 2H PL1500	
2/180°	1000	2025	2/50	3425	(1 m/s)	(1 m/s)	Side 2H PL1500	
1/0°	1800	3025	1800 3025	3000	3325	3900	1500	Central 2H PL1400
2/180°			3000	3425	(1,6 m/s)	(1,6 m/s)	Central 2H PL1400	

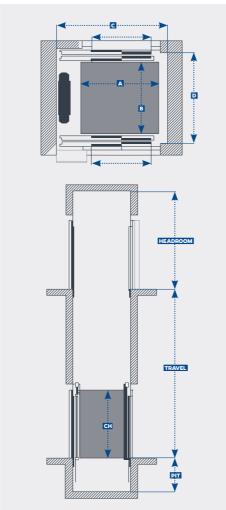
- Standard shaft and car dimensions
- According to the door and opening type.
   Reduced headroom option of 3450 mm for s = 1 m per sec and 3700 mm for 1.6 m per sec with 2050 mm car

# Operational ranges (standard mechanics)

Maximum travel	Up to 30 m					
Shaft	Pit	Standard minimum: 1400 mm (Ns = 1 m/s) 1500 mm (Ns = 1.6 m/s)				
	Headroom	Standard minimum (2200 mm) car: 3700 mm (Ns = 1 m/s) 3900 mm (Ns = 1.6 m/s)				
		Reduced minimum (2050 mm car): 3550 mm (Ns = 1 m/s) 3750 mm (Ns = $1.6$ m/s)				
	Minimum width	Car width + 950 mm				
Car	Minimum depth	2000 mm				
	Maximum depth	3350 mm				
	Minimum width	1500 mm				
	Maximum width	2900 mm				
	Standard height	2200 mm (2050 mm and 2100 mm option)				



Centre 2H PL1400



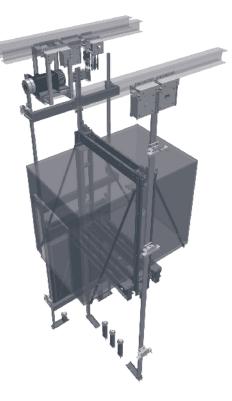
η̈́Ο RATED LOAD • <b>3100kg / 42 people</b>				ROPI	NG • <b>4:1</b>	MAXIMUM SPEED · 1 m/s		
Entrances	Car		Shaft		Headroom	Pit	Door type	
Angle	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm	1	Maximum	
1/0°	2000	2850	3250	3150			Central opening 4H PL1700	
2/180°	2000	2800	3250	3200	4200	1200	Central opening 4H PL1700	
1/0°	2200	2550	3450	2850	4200	1300	Central opening 4H PL1900	
2/180°	2200	2500	3450	2900			Central opening 4H PL1900	

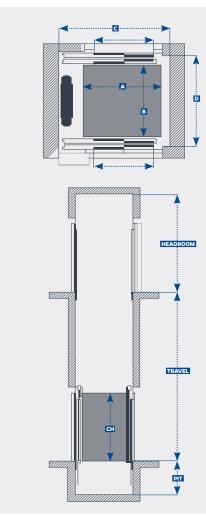
ຖືຖື RATED LOAD • <b>3500kg / 46 people</b>				ROPI	NG • <b>4:1</b>	MAXIMUM SPEED · 1 m/s		
<b>Entrances</b> Angle	Width (A)	Depth (B)	Width (C)	naft Depth* (D)	Headroon CH 2200m	m <b>Pit</b>	<b>Door type</b> Maximum	
1/0°	2200	2950	3450	3250			Central opening 4H PL1900	
2/180°	2200	2900	3450	3300	4200	1200	Central opening 4H PL1900	
1/0°	2400	2700	3650	3000	4200	1300	Central opening 4H PL2000	
2/180°	2400	2650	3650	3050			Central opening 4H PL2000	

Angle	Car		Shaft		Headroom		Door type
	Width (A)	Depth (B)	Width (C)	Depth* (D)	CH 2200mm		Maximum
1/0°	2200	3300	3450	3600	4200		Central opening 4H PL1900
2/180°	2200	3250	3450	3650		1300	Central opening 4H PL1900
1/0°	2500	2900	3750	3200		1300	Central opening 4H PL2100
2/180°	2500	2850	3750	3250			Central opening

Standard shaft and car dimensions

Maximum travel	Up to 30 m					
	Pit	Standard minimum: 1300 mm				
Shaft	Headroom	Standard minimum (2200 mm) car: 4200 mm				
	Minimum width	Car width + 1250 mm				
	Minimum depth	2600 mm				
	Maximum depth	4000 mm				
Car	Minimum width	1600 mm				
	Maximum width	3000 mm				
	Standard height	2200 mm				





<sup>\*</sup> According to the door and opening type.



# Lift Cars

All our standard car series are synonymous with quality and careful manufacturing. We also produce special and customised cars.

For more detailed information, see our catalogue of cars.

# 210 Series

210 Series offers cars ideal for integration into any building project; we have sought a functional design based on a flat modular construction, a fresh and current palette of colours and high-quality in materials oriented to greater durability and resistance.

# 220 Series

220 Series is expressly designed to carry large loads, of both passengers and goods. Of very robust construction, they are available in different finishes of great resistance and durability.

# 310 Series

310 Series offers cars characterised by their high quality finishes, their great versatility and their marked clean lines, which allows them to integrate very easily in any decorative environment.

# 350 Series

Each 350 car is unique; customers can tailor it according to their tastes and preferences or depending on the aesthetic needs of the building combining individualised images or designs with a wide variety of colours for the walls.

# 550 Series

550 Series offers luxurious and sophisticated cars combining elegant and cutting-edge materials with stainless steel in various finishes. A classic renovated for demanding environments, capable of transmitting a feeling of quality every detail.

# 710 Series

When the goal is to leave a mark on the building, 710 Series becomes the ideal choice. Refined, imperishable, handmade, 710 Series enriches and adds character to any architectural environment.















# 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**<sup>®</sup> 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.



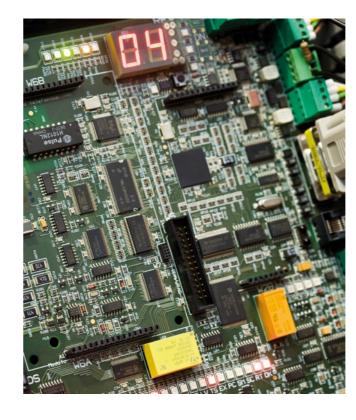
### **Seamless integration for perfect performance**

- 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.



### **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<sup>®</sup> (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\*.







### **Easy maintenance**

- A simple smartphone allows, without the need for cables or additional tools, rapid, easy and user-friendly access to the control system to perform lift maintenance tasks. Our app provides access to documentation, manuals and communication with our customer support department.
- In the event of an unexpected anomaly, Altamira
   II will automatically proceed to correct it in a
   self-learning process by recording the event for
   later analysis by the maintenance department
   without interrupting the lift service.
- Our technical support department can provide remote support and real-time monitoring of lifts via telephone or internet.



### **Remote monitoring**

 The remote monitoring system allows lifts installed in one or more buildings to be run from a control room. This system is based on CAN Bus technology that allows monitoring of lifts, detection and reading of faults in real time, control of groups of lifts, analysis of equipment performance and many other functions.

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



# **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.

Anti-creep device

When a lift normally requires loading and unloading of heavy objects, the use of anti-creep devices to prevent movement of the car during the loading or unloading.

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.

**Service Lift** 

This allows a person to remain in the car and control the doors. When a passenger enters a car and presses a floor button, the lift closes the doors when the rapid-release door button is pressed (otherwise it does not close).

Preferential service

This makes it possible to prioritise an outside call by ignoring the list of orders and calls previously registered.

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.

Buov

This allows detection of any water in the pit forcing the lift to stop on intermediate or higher floors.

**ECOSAVER®** 

A regenerative system that returns power to the grid when running in generator mode.

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.

**MODBUS** 

Sending information from the lift to a centralised system by MODBUS protocol.

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 ouf 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
- Meeting all the European quality standards.
- Particularly regarding safety, sustainability and environmental care.



### **EXPORT DEPARTMENT**

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ISO 9001 Quality Management



Occupational Health & Safety Management



ISO 14001 Environmental Management

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