

**Silens-Pro Vanguard**





# Silens-Pro Vanguard

**SILENS**  
pro

VANGUARD

## Machine-roomless

The Silens-Pro Vanguard® is a lift with a rated load capacity of from 630 to 1275kg and a rated speed of up to 1.6 metres/second, which needs no machine room and so frees up available building space and interior design options.

## Excellence supplied as standard

The Silens-Pro Vanguard® is equipped as standard with the most up-to-date technology available: our Direct Approach System, top-quality lift cars, a state-of-the-art control system – not to mention a wide range of optional extras to tailor each particular lift system to every project's specific requirements.

## Uniquely comfortable ride

The Silens-Pro Vanguard® has a 2:1 roping ratio and a Centre or a rucksack car frame. Its Centre suspension, combined with the Direct Approach System, delivers a supremely comfortable ride and optimum travel efficiency.

Office buildings, shopping centres, hospitals, hotels... these are all buildings with high levels of traffic which require highly efficient vertical transport solutions. The Silens-Pro Vanguard® is a state-of-the-art and exceptionally hard-wearing machine-roomless lift which can carry out thousands of trips every year, transporting passengers with proven precision, security and reliability. A high-performance lift specially designed for a demanding market sector.

## Ultramodern gearless motor

The Silens-Pro Vanguard® is equipped with a highly advanced gearless motor which is environmentally-friendly, very quiet and significantly cuts energy consumption. These motors require no lubrication and use no oils.



Hospitals



Industry



Shopping centres



Offices

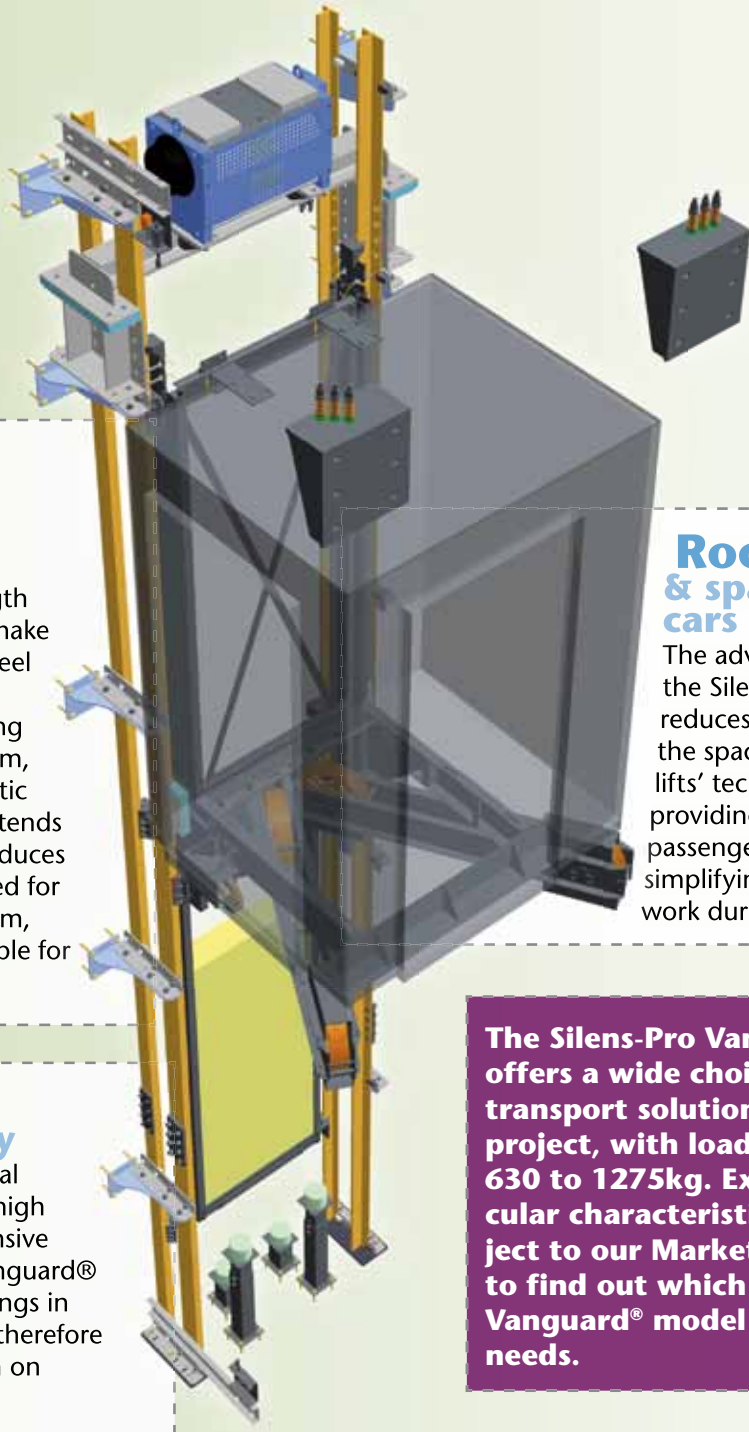
### Silens Pro Vanguard®

Rated load capacity:	630 - 1275Kg.
Rated speed:	1 m/s or 1,6 m/s.
Entrance configuration:	Single, or double at 90° or 180° according to configuration (consult technical info charts)
Control system:	Altamira 2
Design:	Lift car models 206, 406 or 410
Car & landing doors:	800, 900, 1000 or 1100mm
Maximum travel:	From 40 to 60 metres, according to configuration (consult technical info charts)





# Silens-Pro Vanguard



## Sturdier & lighter

The Silens-Pro Vanguard® heavy duty goods lift is designed with high-strength steel components which make it extremely sturdy. The steel used is much lighter than conventional steel, reducing the weight of the lift system, as well as lowering the static tensile loading – which extends the lift's lifespan. It also reduces the size of lift shaft required for installation of the lift system, making more space available for productive use.

## Roomy & spacious lift cars

The advanced design of the Silens-Pro Vanguard® reduces to a minimum the space taken up by the lifts' technical components, providing more space for the passengers and reducing and simplifying the construction work during installation.

## Maximum energy efficiency

Buildings in the commercial sector are noted for their high operating costs and expensive energy bills. Silens-Pro Vanguard® lifts deliver significant savings in energy consumption and therefore in costs (more information on Page 11).

**The Silens-Pro Vanguard® range offers a wide choice of vertical transport solutions to suit any project, with load capacities from 630 to 1275kg. Explain the particular characteristics of your project to our Marketing Department to find out which Silens-Pro Vanguard® model best suits your needs.**



## Silens-Pro Vanguard® complies with the following standards

- European Lift Directive 95/16/EC
- EN81-1:2001 +A3 (Safety rules for the construction and installation of lifts. Part 1: Electric lifts)
- EN81-28:2003 (Safety rules for the construction and installation of lifts. Lifts for the transport of persons and goods. Part 28: Remote alarm on passenger and goods passenger lifts).

## Additional options

- EN81-21:2009 (Safety rules for the construction and installation of lifts. Lifts for the transport of persons and goods. Part 21: New passenger and goods passenger lifts in existing buildings)
- EN81-70:2003 (Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Part 70: Accessibility to lifts for persons including persons with disability)
- EN81-72:2003 (Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Part 72: Firefighters lifts)
- EN81-73:2005 (Safety rules for the construction and installation of lifts. Particular applications for passenger and goods passenger lifts. Part 73: Behaviour of lifts in the event of fire).



# The right choice for lift professionals

## Installation – simpler and more economic

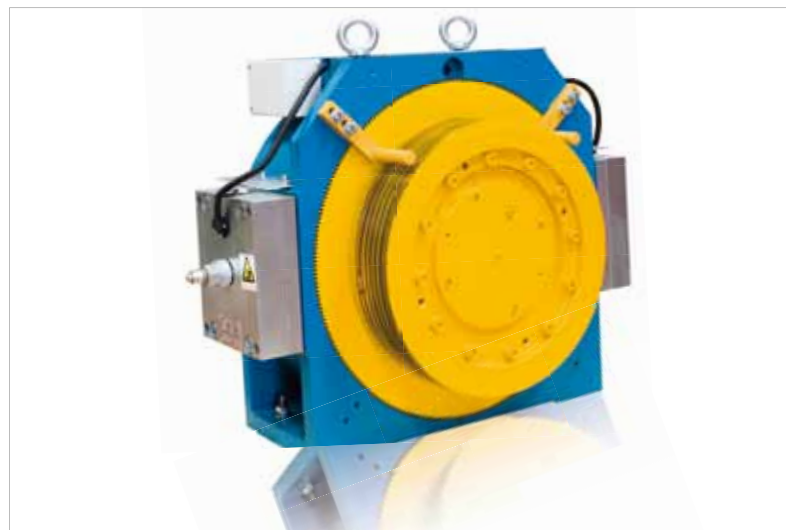
The Silens-Pro Vanguard® range has been designed by lift professional for lift professionals, with particular attention paid to making installation as straightforward as possible.

- The whole mechanical system is assembled with bolts and screws and has been designed to avoid unproductive down-time which slows down assembly and contributes no added value to the system.
- The Direct Approach System, supplied across the whole range, removes the need for magnetic detectors and magnets within the shaft (except in the door area), making installation both cheaper and simpler.



## Gearless drive unit state-of-the-art

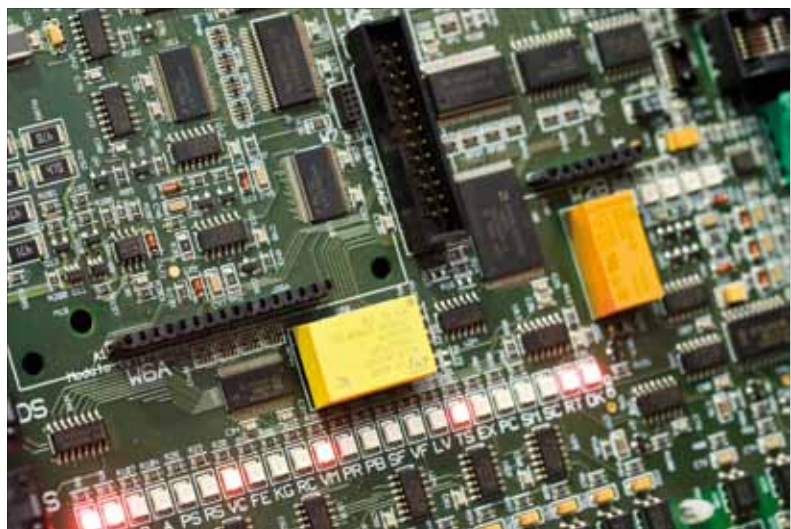
All models are equipped with gearless motors, which require no maintenance and whose productive life is practically limitless.



## Flexibility and technology

The new Altamira 2 control system has been developed from start to finish by our R&D engineers, so as to make the Silens-Pro Vanguard® a complete solution capable of fulfilling the highest demands and expectations.

Altamira 2 is equipped to perform countless functions, from communication to ride comfort and precision, and to resolve each and every task required by the building's traffic flows.







## Guaranteed spare parts & top-quality technical support

With every Silens-Pro Vanguard® lift installed comes peace of mind and the guaranteed availability of new spare parts for many years. Our R&D technicians work together with our customers to anticipate the emergence of any problems and efficiently resolve those which may occur. All this within a framework of permanent ongoing support and monitoring.



## Reliability & ease of maintenance

A Silens-Pro Vanguard® lift is highly reliable, hard-wearing and technologically sophisticated - making it both cost-effective and easy to maintain.



## Safest work conditions for technical personnel

The Silens-Pro Vanguard® has been designed to create the safest possible working conditions for maintenance personnel, to avoid their possible entrapment and other risks. Safety levels are further guaranteed by the system's strict conformity with the most stringent national and international standards in this field.

## Highest specifications & top competitiveness

The Silens-Pro Vanguard® range provides lift professionals with a highly market-competitive and technologically state-of-the-art product. The Silens-Pro Vanguard® is thoroughly reliable and safe for both passengers and maintenance personnel, and incorporates the latest technological breakthroughs available in the lift sector.

# A world of possibilities for constructor and architect alike

## Lifts without machine rooms

The fact that the system requires no machine room frees up a significant amount of space for the constructor and end-user, and so saves costs as well as broadening the architect's design options.

## Lift shafts space-saving

Silens-Pro® lifts require smaller lift shafts than other lift systems currently on the market, making it possible to install more spacious lifts within less space. This space-saving effect also leads to major savings in construction costs.

## Design at the cutting edge

Every lift car is equipped with state-of-the-art button panels, push-buttons and display panels, bringing sophisticated design to any setting.

## Standard equipment top quality

The whole Silens-Pro Vanguard® range offers as standard the latest safety and ride comfort technologies available, as well as providing a wide choice of optional extras to tailor each lift system to the needs of the particular building.





# The perfect lift for lift users



## Ride comfort excellent

The Silens-Pro®'s Direct Approach System comes as standard on all models, and its central suspension produces maximum travel stability. All this gives passengers a smooth and precise ride without sudden movements, and delivers spot-on stopping accuracy.



## Silent traction efficient & eco-friendly

The gearless motor consumes little energy and is completely silent and environmentally-friendly.



## Long-lasting reliability

The Silens-Pro Vanguard®'s guaranteed reliability and durability delivers thousands upon thousands of trouble-free journeys in high-intensity traffic conditions over many, many years.

## Complete safety for passengers

The Silens-Pro Vanguard® comes equipped with all the elements required to anticipate and prevent accidents, to enable two-way communication and to facilitate fast and efficient passenger release.

## Sustainability & energy-saving

The Silens-Pro Vanguard® system is energy-efficient and environmentally-friendly. It also significantly reduces structural costs and the building's power supply bills.

# The smoothest finely-tuned ride Direct Approach System



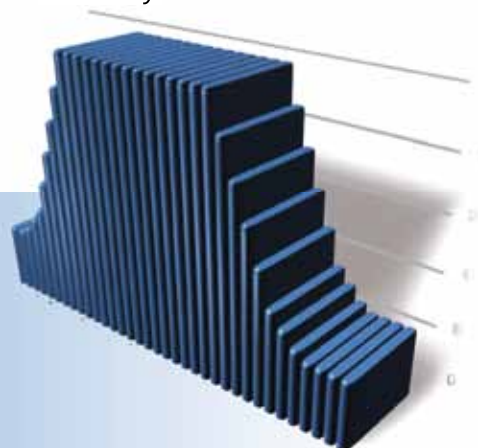
## Less waiting time for the lift passenger

The Direct Approach System –included for the first time as standard across the entire Silens-Pro Vanguard® range – allows the control system to calculate the optimum lift travel velocity curve according to the distance remaining to the selected destination. This eliminates the delays typical of previous systems as the lift car approaches landings, and represents a major step forward in passenger comfort and technical specification.

The Direct Approach System optimises ride comfort by selecting the acceleration and deceleration timings most appropriate to the lift car's precise speed and location

## More straightforward for the lift professional

- The control system can pinpoint the exact position of the lift car in real time, using a single encoder fitted to the drive unit. Maximum simplicity delivering optimum performance.
- This straightforward solution eliminates the need for the secondary devices usually deployed to control lift car position, saving on installation and start-up times.
- The number of sensors and signal processors in the lift shaft is therefore lower than in conventional lift systems, further reducing installation time - and costs.
- The likelihood of failures caused by magnetic sensor deterioration and by positioning changes producing false readings is also significantly reduced.
- The start-up procedure is faster than for conventional lift systems without the Direct Approach System.
- The final car-levelling adjustment procedures are simply carried out using the car display panel.
- Shorter-than-usual travel distances between floors do not interfere with travel quality and efficiency.





# A system which incorporates high technology, energy efficiency & sustainability

## Energy efficiency choices

Deciding on the best lift solution for your building is the starting-point for achieving optimum energy-saving. Our extensive experience in the design and development of machine-roomless lifts informs our traffic analyses which determine the number of lifts required and their ideal size to guarantee the traffic management solution best suited to each project's particular needs.

- When the lift cars are unoccupied, the system can enter into stand-by mode. This results in significant year-on-year energy-saving and further improves the system's sustainability.
- Our permanent-magnet gearless motors deliver much lower energy consumption levels than conventional traction drive systems.
- Car lighting costs can be further reduced by the installation of energy-saving LED spots.



## Ecosaver® Regenerative Drive System

Including an EcoSaver® Regenerative Drive System in your Silens-Pro Vanguard® lift package transforms it into **an active generator of electric power.**

With the EcoSaver® System, the motor itself becomes a power generator when the lift car is going up empty or with only a few passengers and when it is going down heavily loaded.

EcoSaver® efficiently stores this energy, preventing its loss as heat, and feeds it back into the building's power supply network. Energy savings can rise to as much as 50% of the lift system's total power consumption.



## EcoSaver® installation delivers you:

- An ultracompact energy- management system which makes the lift highly sustainable and eco-friendly.
- A major improvement in the system's power factor (the ratio between power consumed and power drawn from the electricity network) resulting in even greater cost savings.
- Clean energy, with less than 5% harmonic distortion (as against the 35% current legal limit), and the elimination of interference with and malfunction of nearby electronic and radio equipment.
- Major savings in your building's energy bills.



LIGHTING

LED SPOT



WALL FINISHES

P270



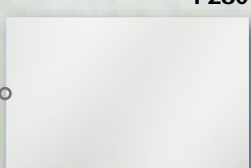
P260



P222



P280



FLOORING

S32GN



STANDARD BUTTON PANEL: BCE1



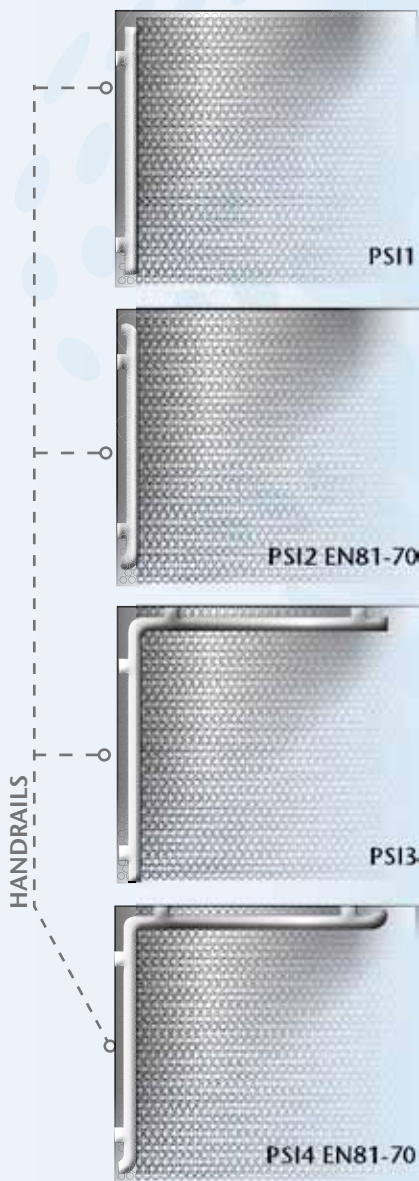


# Interior styling

## Lift car 206



HALF-COLUMN BUTTON PANEL: BCE2



HANDRAILS

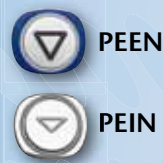
### OPTIONS

- Plastic laminates available in a choice of colours.
- Lift car fronts in standard stainless steel.
- Stainless steel upper and lower skirtings, as standard.
- Stainless steel handrails, available in different formats.
- Hardwearing black rubber flooring.
- 1/3-width mirror on car back wall, at 300mm from the floor.
- Direct lighting with LED spots.
- Stainless steel car button panel, in standard or half-column format.

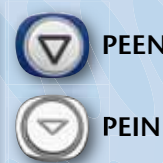
### LANDING BUTTON PANELS



BEE1



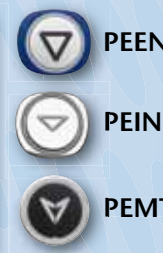
BEE2



BEE3



BEE4



### IN-CAR PUSH-BUTTONS



PCEN



PCIN



PCEB



PCMT

### DISPLAYS



DCTFT (7'')



DCEGH (5'')



DCEPH (3'')

### ARROW DISPLAYS



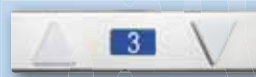
HLE1



HLE3



HLE2



HLE4



\*HLE5

\*EN81-70 for cars with 50mm entrance return



LIGHTING

LED SPOT

LED 700

P412

WALL FINISHES

P422

P432

INOX

STANDARD BUTTON PANEL: BCE1

FLOORING

S32GN

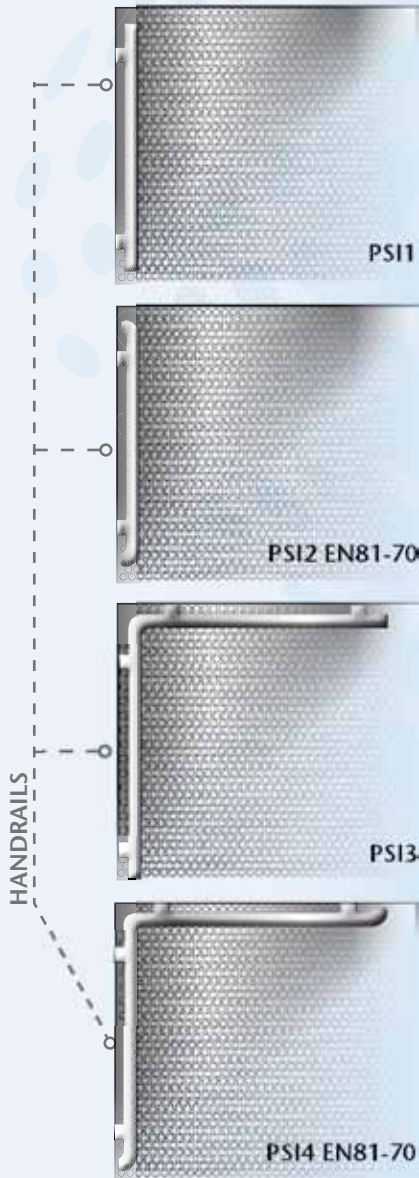


# Interior styling

## Lift car 406



HALF-COLUMN BUTTON PANEL: BCE2



HANDRAILS

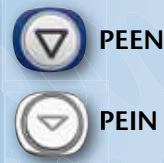
### OPTIONS

- Available finished throughout in stainless steel, or in laminated plastic in a choice of colours and textures.
- Car fronts in standard stainless steel.
- Upper and lower skirtings in standard stainless steel.
- Stainless steel handrails, available in different formats.
- Hardwearing black rubber flooring.
- 1/3-width mirror on car back wall, at 300mm from the floor.
- Direct lighting with LED light panels.
- Stainless steel car button panel, in standard or half-column format.

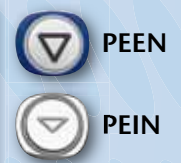
### LANDING BUTTON PANELS



BEE1



BEE2



BEE3



BEE4



### IN-CAR PUSH-BUTTONS



PCEN



PCIN



PCEB



PCMT

### DISPLAYS



DCTFT (7'')



DCEGH (5'')



DCEPH (3'')

### ARROW DISPLAYS



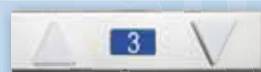
HLE1



HLE3



HLE2



HLE4



\*HLE5

\*EN81-70 for cars with 50mm entrance return



LIGHTING

L750

L760

WALL FINISHES

PC443

PC453

PC463

INOX

HALF-COLUMN BUTTON PANEL: BCE2

FLOORING

S32GN

S62GG

S52GN

S42GB



# Interior styling Lift car 410

STANDARD BUTTON PANEL: BCE1



HANDRAILS



## OPTIONS

- Available finished throughout in stainless steel, standard or in a choice of colours.
- Car fronts in standard stainless steel.
- Lower skirting available in standard stainless steel.
- Stainless steel handrails, available in different formats.
- Hardwearing flooring in black rubber or reinforced homogeneous vinyl.
- 1/3-width mirror on car back wall, at 300mm from the floor.
- Direct lighting with fluorescent light panels.
- Stainless steel car button panel, in standard or half-column format.

## LANDING BUTTON PANELS



BEE1



PEEN



PEIN



BEE2



PEEN



PEIN



BEE3



PEEN



PEIN



PEMT



BEE4



PEEN



PEIN



PEMT



DEEPPV

IN-CAR PUSH-BUTTONS



PCEN



PCIN



PCEB



PCMT

DISPLAYS



DCTFT(7'')



DCEGH (5'')



DCEPH (3'')

ARROW DISPLAYS



HLE1



HLE3



HLE2



HLE4



\*HLE5

\*EN81-70 for cars with 50mm entrance return

# Technical data

## Silens-Pro Vanguard 1

RATED LOAD (Kgs)	N° of people	ROPING	Máx. speed (m/s)	ENTRANCES N° / ANGLE	CAR SIZE		SHAFT SIZE		HEADROOM ** (car height 2200mm)	PIT ***	DOOR TYPE Max door width	
					WIDTH	DEPTH	WIDTH	DEPTH*				
750	10	2:1	1	1 / 0°	1100	1600	1600	1875	3400	1050	Side 2H PL900	
					1300	1400	1800	1675				Centre 2H PL900
					1100	1600	1950	1850				
					1300	1400	1950	1675				
				2 / 180°	1100	1600	1600	2000			Side 2H PL900	
					1300	1400	1800	1800				
					1100	1600	1950	1975				
					1300	1400	1950	1775				
1000	13	2:1	1	1 / 0°	1100	2100	1600	2375	3400	1050	Side 2H PL900	
					1600	1400	2100	1675				Side 2H PL1100
					1100	2100	1950	2375				
					1600	1400	2100	1700				
				2 / 180°	1100	2100	1600	2500			Centre 2H PL900	
					1600	1400	2100	1800				
					1100	2100	1950	2475				
					1600	1400	2125	1775				

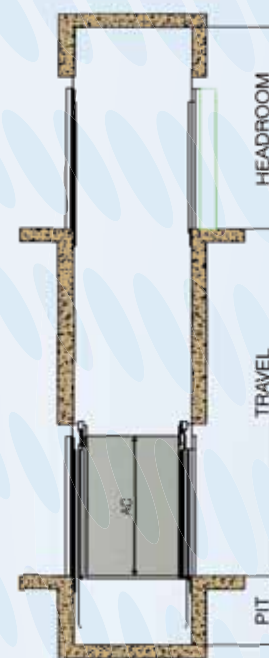
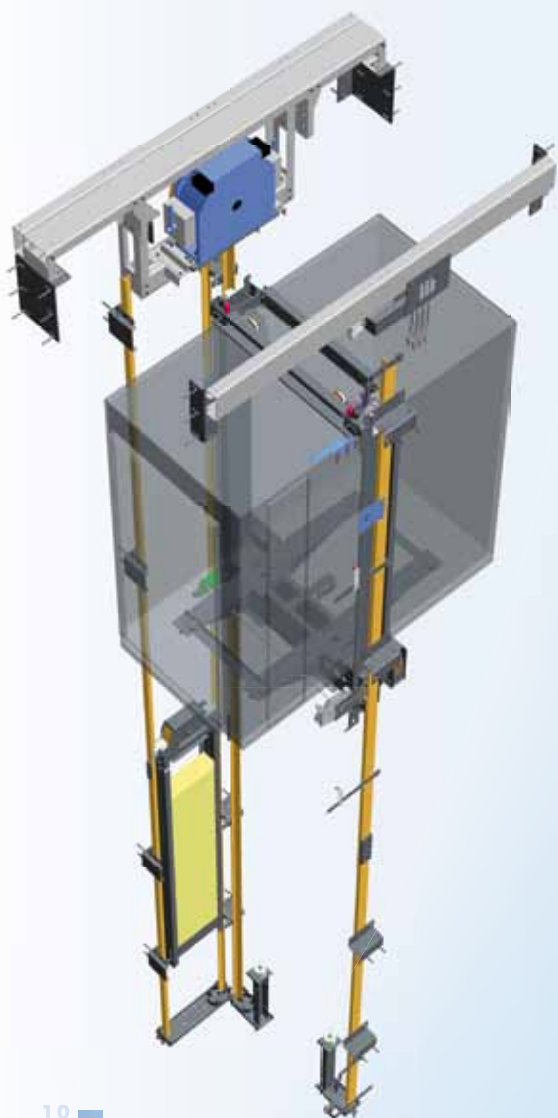
■ Standard shaft & car dimensions

\* Dependent on door type and entrance return

\*\* Option of 3250mm reduced headroom with 2050mm car height

\*\*\* For lifts with marble flooring or panoramic cars, check against pit and headroom dimensions.

For lifts with reduced height cars, check against pit and headroom dimensions.



### Operational ranges (standard system)

<i>Maximum travel</i>	Up to 40 metres	
<i>Shaft</i>	<i>Pit</i>	Standard minimum: 1050mm
	<i>Headroom</i>	Standard min. (2200mm car): 3400mm Reduced min. (2050mm car): 3250mm
	<i>Minimum width</i>	Car width + 500mm
<i>Car</i>	<i>Minimum depth</i>	1400mm
	<i>Maximum depth</i>	2100mm
	<i>Minimum width</i>	1000mm
	<i>Maximum width</i>	1650mm
	<i>Standard height</i>	2200mm (2050mm & 2100mm options)



## Silens-Pro Vanguard 2

RATED LOAD (Kgs)	N° of people	ROPING	Máx. speed (m/s)	ENTRANCES N° / ANGLE	CAR SIZE		SHAFT SIZE		HEADROOM ** (car height 2200mm)	PIT ***	DOOR TYPE Max door width	
					WIDTH	DEPTH	WIDTH	DEPTH*				
630	8	2:1	1,6	1 / 0°	1100	1400	1650	1700	3800	1300	Side 2H PL900	
					1100	1400	1950	1700			Centre 2HPL900	
				2 / 180°	1100	1400	1650	1850			Side 2H PL900	
					1100	1400	1950	1850			Centre 2HPL900	
750	10			1 / 0°	1100	1600	1650	1875			Side 2H PL900	
					1300	1400	1850	1675			Centre 2HPL900	
					1100	1600	1950	1850			Side 2H PL900	
					2 / 180°	1100	1600	1650			2000	Centre 2HPL900
						1300	1400	1850			1800	Side 2H PL900
						1100	1600	1950			1975	Centre 2HPL900
1000	13			1 / 0°	1100	1600	1650	1775			Side 2H PL900	
					1100	2100	1650	2375			Centre 2HPL900	
		1600	1400		2150	1675	Side 2H PL1100					
		1100	2100		1950	2375	Centre 2HPL900					
		2 / 180°	1600		1400	2150	1700	Side 2H PL900				
			1100		2100	1650	2500	Centre 2HPL900				
			1600		1400	2150	1800	Side 2H PL1100				
			1100		2100	1950	2475	Centre 2HPL900				
		1600	1400		2175	1775	Side 2H PL1100					

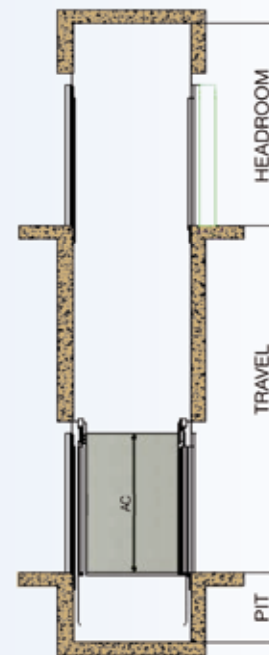
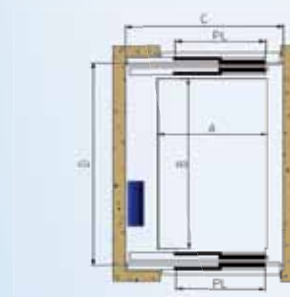
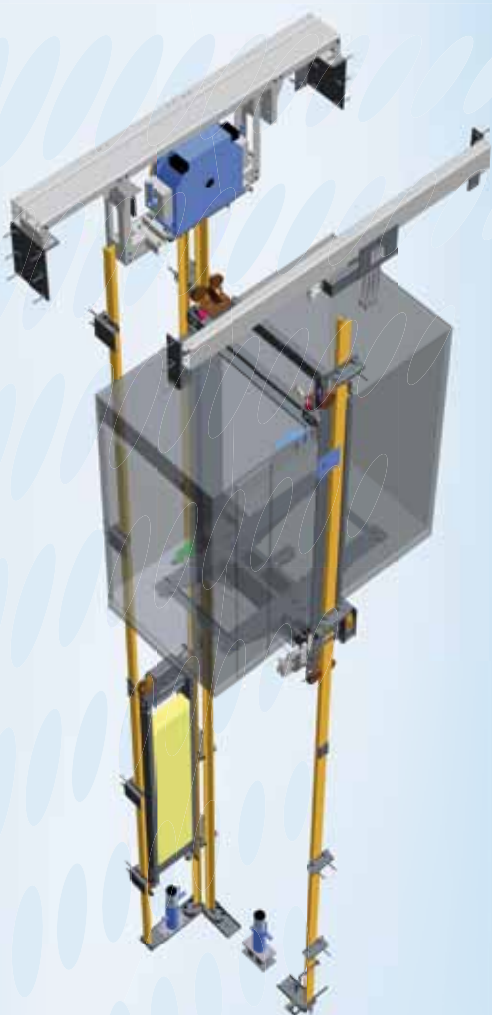
- EN81-70 car
- Standard shaft & car dimensions

\* Dependent on door type and entrance return.

\*\* Option of 3650mm reduced headroom with 2050mm car height.

\*\*\* For lifts with marble flooring or panoramic cars, check against pit and headroom dimensions.

For lifts with reduced height cars, check against pit and headroom dimensions.



### Operational ranges (standard system)

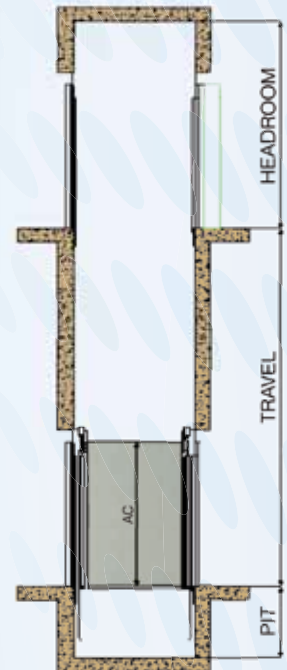
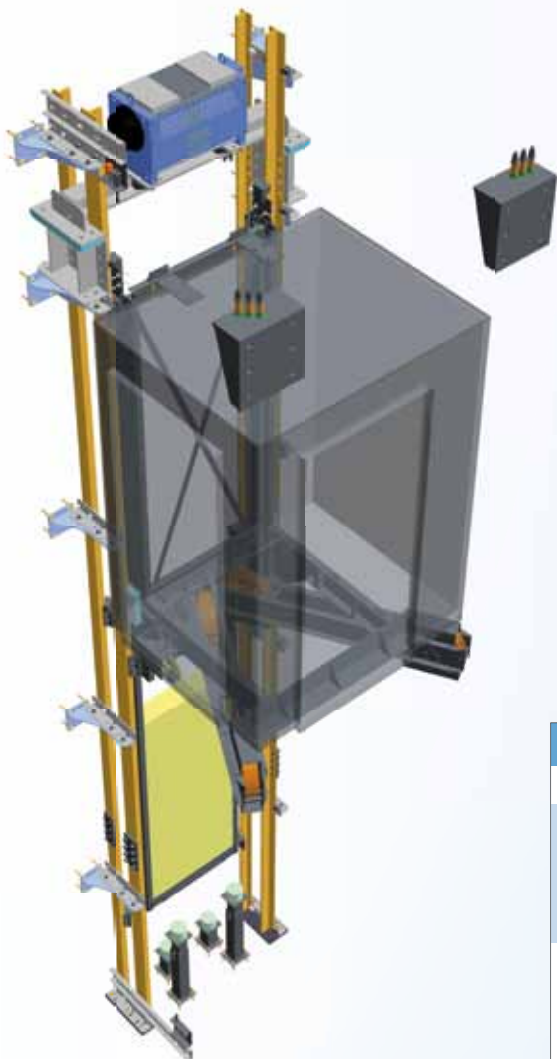
<b>Maximum travel</b>	Up to 60 metres
<b>Shaft</b>	<b>Pit</b> Standard minimum: 1300mm
	<b>Headroom</b> Standard min. (2200mm car): 3800mm Reduced min. (2050mm car): 3650mm
	<b>Minimum width</b> Car width + 550mm
<b>Car</b>	<b>Minimum depth</b> 1400mm
	<b>Maximum depth</b> 2100mm
	<b>Minimum width</b> 1000mm
	<b>Maximum width</b> 1650mm
	<b>Standard height</b> 2200mm (2050mm & 2100mm options)

REAR-MOUNTED SYSTEM											
RATED LOAD (Kgs)	N° of people	ROPING	Máx. speed (m/s)	ENTRANCES N° / ANGLE	CAR SIZE		SHAFT SIZE		HEADROOM ** (car height 2200mm)	PIT	DOOR TYPE Max door width
					WIDTH	DEPTH	WIDTH	DEPTH*			
750	10	2:1	1 m/s	2 / 90°	1100	1600	1850	1900	3450 below load-bearing beam	1200	Side 2H PL900 Side 3H PL900
1000	13			2 / 90°	1100	2100	1850	2400			Side 2H PL900 Centre 4HPL900
1275	17			1 / 0°	1200	2300	1850	2600			Side 2H PL1100
				2 / 180°			1850	2700			Side 2H PL1000 Side 3H PL1100
				2 / 90°			1950	2600			Centre 2HPL1100
				1 / 0°			2350	2600			Centre 4HPL1100
				2 / 180°			2350	2700			
2 / 90°	2000	2600									

■ Standard shaft & car dimensions

\* Dependent on door type and entrance return

\*\* Option of 3300mm reduced headroom below load-bearing beam with 2050mm car height



Operational ranges (standard system)		
Maximum travel	Up to 40 metres	
Shaft	Pit	Standard minimum: 1200mm
	Headroom	Standard min. (2200mm car): 3450mm Reduced min. (2050mm car): 3300mm
	Minimum width	Car width + 650mm
Car	Minimum depth	1400mm
	Maximum depth	2500mm
	Minimum width	1000mm
	Maximum width	1600mm
	Standard height	2200mm (2050mm & 2100mm options)



# Silens-Pro Vanguard 4

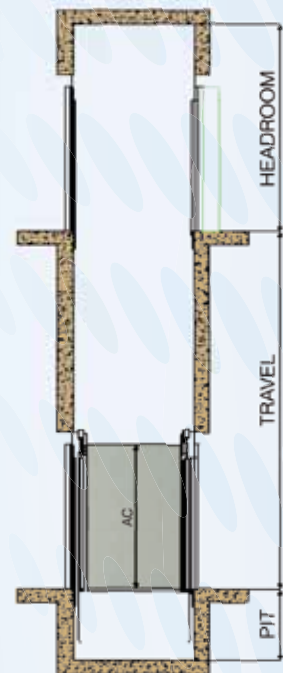
RATED LOAD (Kgs)	N° of people	ROPING	Máx. speed (m/s)	ENTRANCES N° / ANGLE	CAR SIZE		SHAFT SIZE		HEADROOM ** (car height 2200mm)	PIT	DOOR TYPE Max door width				
					WIDTH	DEPTH	WIDTH	DEPTH*							
1275	17	2:1	1 m/s	1 / 0°	2000	1400	2800	1700	3600	1300	Side 2H PL1100				
							2800	1675			Centre 2HPL1100				
				2 / 180°			2800	1800			Side 2H PL1100				
							2800	1775			Centre 2HPL1100				
1275	17	2:1	1,6 m/s	1 / 0°	1200	2300	2000	2600	3850	1400	Side 2H PL1100				
							2000	2700			Centre 2HPL1100				
				2 / 180°			2350	2600				Side 2H PL1100			
							2350	2650			Centre 2HPL1100				
				1 / 0°	2000	1400	2800	1700	3850	1400	2800	1675	3850	1400	Side 2H PL1100
							2800	1800			Centre 2HPL1100				
							2 / 180°	2800			1800	Side 2H PL1100			
								2800			1775	Centre 2HPL1100			

- EN81-70 car
- Standard shaft & car dimensions

\* Dependent on door type and entrance return

\*\* Option of 3450mm reduced headroom with 2050mm car height (rated speed=1m/s)

\*\* Option of 3700mm reduced headroom with 2050mm car height (rated speed=1.6m/s)



### Operational ranges (standard system)

<b>Maximum travel</b>	Up to 40 metres (1m/s rated speed) & up to 60 metres (1.6 rated speed)
<b>Shaft</b>	<p><b>Pit</b> Standard min.: 1300mm (1m/s rated speed) &amp; 1400mm (1.6m/s rated speed)</p> <p><b>Headroom</b> Standard min. (2200mm car): 3600mm (1m/s rated speed) &amp; 3850mm (1.6m/s rated speed) Reduced min. (2050mm car): 3450mm (1m/s rated speed) &amp; 3700mm (1.6m/s rated speed)</p> <p><b>Minimum width</b> Car width + 800 mm</p>
<b>Car</b>	<p><b>Minimum depth</b> 1400mm</p> <p><b>Maximum depth</b> 2600mm</p> <p><b>Minimum width</b> 1100mm</p> <p><b>Maximum width</b> 2000mm</p> <p><b>Standard height</b> 2200mm (2050mm &amp; 2100mm options)</p>



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