

SYNERGY 100:
PURE
AND
EFFICIENT





PURE AND EFFICIENT FOR RESIDENTIAL BUILDINGS

synergy 100:

the proven solution that offers an excellent price-quality ratio.

synergy 100 proves that sleek design and a comfortable ride can be affordable. synergy 100 offers optimised shaft dimensions with the option of reduced pit and overhead spaces.

This compact elevator features durable materials that increase efficiency and working life. The low initial investment and high return throughout the life cycle of the elevator ensure maximum return on your investment.

Choose synergy 100 and trust in TK Elevators's expertise. Our excellent service ensures maximum availability and adds value to residential projects by ensuring optimum functionality for longer, resulting in increased user satisfaction.

All these attributes make synergy 100 perfect for residential buildings with low traffic flows.

OVERVIEW SYNERGY 100

Elevator type	Machine room-less, optional machine room
Passengers	6 / 8 / 13 passengers
Load	450 / 630 / 1,000 kg
Speed	1.0 m/s
Travel height	Up to 45 m
Number of stops	Up to 12 stops
Cabin	6 predesigned cabins
Door types	Side-opening or central opening with 2 panels
Door opening width	800 mm or 900 mm
Door height	2,000 mm or 2,100 mm



made in europe
At our elevator manufacturing
centers in Germany and Spain.

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The synergy family at a glance

synergy 100: **Pure and efficient**

The ideal solution for low-traffic functional residential buildings.

synergy 200: **Stylish and flexible**

Ideal elevator for low- to mid-traffic residential buildings with demanding design and flexibility requirements. Also perfect for modernising existing buildings.

synergy 300: **Versatile and smart**

Designed for low-duty and low- to mid-traffic commercial and office buildings.

The easy solution that meets all your mobility needs

synergy 100 is the ideal solution if you are looking for a durable, energy-efficient and compact elevator for a new residential building with low traffic flows and basic needs. synergy is built on good quality and TK Elevator's experience with a product that has already proved its effectiveness in the market for over 10 years.



Best-in-class shaft efficiency

Whether you choose standard dimensions for overhead and pit or a version with reduced dimensions – synergy 100 is best-in-class.



Low energy consumption

synergy 100 offers several standard features that keep energy costs in the green range, such as LED lighting, automatic stand-by operation and its efficient, gearless machine. synergy achieved an A class for energy-efficiency rating.



Our long history of engineering experience

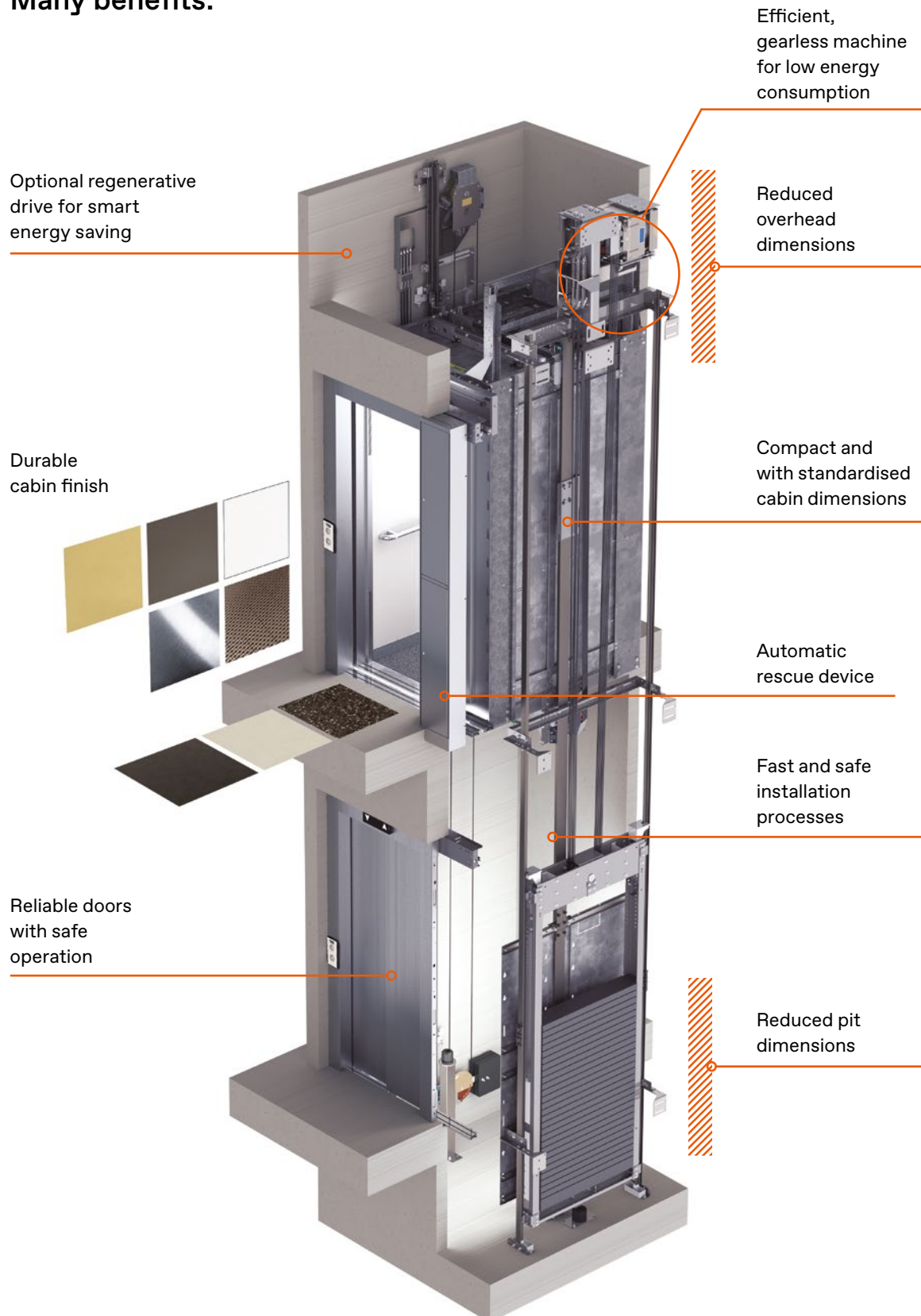
Our experience guarantees reliability, and enhanced safety, thanks to strict internal safety standards.



Good investment

Excellent cost-performance ratio throughout the product life cycle. Durable materials and proven components for longevity, supported by our skilled installation and outstanding service to ensure a longer working life.

One elevator. Many benefits.



PERFORMANCE EFFICIENCY COMFORT SAFETY & REGULATIONS DESIGN

Performance

Delivering cost-effective performance that perfectly matches the needs of residential buildings.



Gearless machine designed in Germany: high performance and quality ensure smooth operation and a long and reliable working life.



Proven components: synergy 100 is manufactured using proven components that guarantee reliable performance. More than 75,000 units of the synergy family have already been delivered worldwide.

Energy efficiency

Solutions for low energy consumption.

Sustainability is part of our corporate strategy. It involves the holistic improvement of our products and processes to help you reduce the environmental footprint of your buildings and qualify for LEED® and BREEAM® certification by incorporating green features in our elevators.

synergy



Based on a 630 kg elevator at 1 m/s with 12 m travel height and usage category 1

Measurements taken on a standard synergy configuration with sleep mode achieve the highest energy-efficiency rating Class A according to ISO 25745-2. The low energy consumption reduces the CO₂ footprint of the elevator during operation and consequently its share of the overall energy consumption of a building. This has also been proven by synergy's life cycle assessment.



Environmental Product Declaration (EPD®)

synergy 100 has a certified Environmental Product Declaration (EPD) giving information about the environmental performance and contents, which has been controlled and verified according to the requirements of the International EPD® System.

Registration number: S-P-01639

More information is available at www.environdec.com.



Low energy consumption thanks to the highly efficient gearless machine with no contaminant lubricants.



Standby mode: cabin lighting comes with automatic switch-off as standard.

Sleep mode (optional): The electronic components are turned off when the elevator is in sleep mode and are instantly activated when the elevator is called.



LED lighting is standard for all lighting devices in shaft, cabin (ceilings, push-buttons, etc.) and landings. LED lighting can last 10 times longer and is up to 80 % more energy efficient than halogen lighting.



Gearless machine: low energy consumption, no need for oil or other lubricants, maintenance free.

45 % savings by adding sleep mode option

Comfort

More than a pleasant ride.



- **Accessibility:** cabin and door dimensions, the safety mirror, the handrails design, luminance contrast in fixtures, adjustable sound level, as well as voice announcements meet the accessibility requirements of the new EN 81-70:2018 European standard.
- **Easy-to-use push-buttons** with Braille lettering and green frame for the main floor button.
- **The controller** avoids unnecessary trips and reduces waiting times.
- **Silent and low-vibration:** synergy 100 is best-in-class within its segment.
- **Landing accuracy:** the controller ensures accurate levelling. Landing accuracy of +/- 3 mm ensures safe and comfortable access for passengers.

Safety & regulations

Ensuring safety for all users at all times.

EN
81-20/50

Elevators are the safest means of transport: all safety elements are manufactured to meet all relevant industry standards and regulations, including our company's own strict internal Safety, Health and Environment standards, as well as meeting ISO 9001 and 14001.

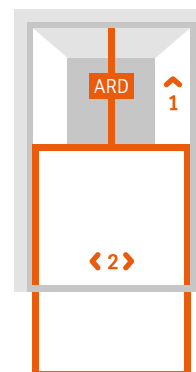


Highest standards: we design and test to the highest standards and manufacture our own safety components.



Stay connected 24/7: whenever you need it, the communication system is there for you, keeping you connected with our 24hr call center.

Emergency evacuation (standard): in the event of power failure, the Automatic Rescue Device (ARD) will safely take you to the next floor (load dependent) <1> and open the doors to allow passengers to exit the cabin <2>.



Design

Sophisticated functionality.



Predefined cabin: F20
Ambiance: Fresh
Ceiling: Steel Grille
Walls: Skinplate White
Floor: Vinyl, Nature Black

Design lines for synergy 100

The F design line combines timeless, clean designs with attractive and durable materials. Neutral colours, as well as long-lasting stainless steel finishes are the ideal choice for functional buildings. This design line presents predefined cabin interiors in the ambiance styles “Fresh” and “Timeless”.

Design line F: Fresh



F20



F21



F22



F23

Design line F: Timeless



F30 with optional vandal-resistant features



F31 with optional vandal-resistant features

If you want to equip your elevator to withstand extreme wear and tear and vandalism, the design line F offers optional vandal-resistant (partially Category 1) ceilings or fixtures.

Discover more variants of the F design line in the cabin designer tool.



f-design-synergy.tkelevator.com

Panels, buttons, handrails, and more for synergy 100

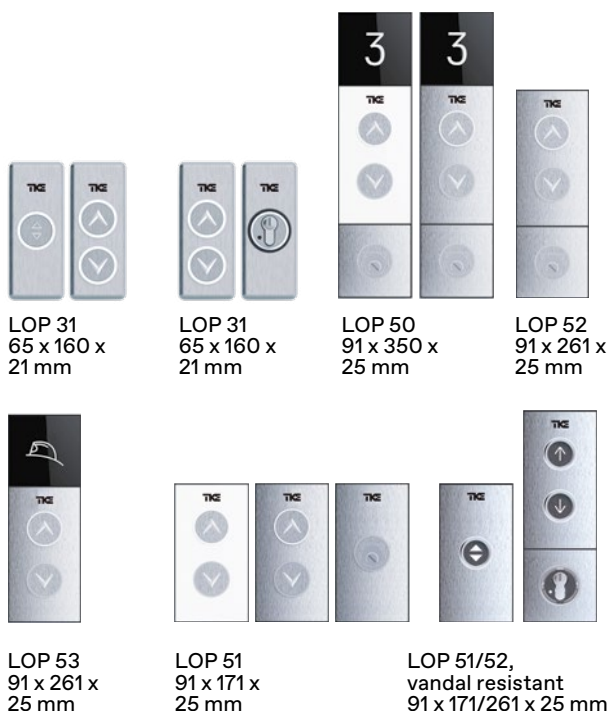
Choose operating panels and accessories that fit your needs.

Car Operating Panels (COP)



With its minimalist design, the Moon operating panel perfectly combines functionality and quality. It is available in stainless steel or white tempered glass with a TFT 3.5" display. The vandal-resistant option features the VB push-button series. Optionally, a second vertical or horizontal COP can be installed.

Landing Operating Panels (LOP)



Contemporary styling for landing signalling in white safety glass or stainless steel. With optional TFT 3.5" display and/or extra keyswitch. Thanks to their slim design, series 30 fixtures are particularly suitable for narrow landing door jambs.

Landing Direction Indicator Panels (LDIP) & Landing Indicator Panels (LIP)



Achieve a modern and neutral look with a black glass face plate. Or select the most functional option with the arrow integrated in the cabin portal.

Push-buttons



Standard DB button series with stainless steel faceplate and Braille lettering, main floor green frame and round white confirmation lighting. Optionally, VB and XL push-buttons are available for vandal-resistant and horizontal COP accordingly. All series conform with the new EN 81-70 regulation.

Panels

Choose between full stainless steel (brushed or linen) or a coated steel skinplate in the stylish unicoloured predesigned cabins.



Slim LED plate

Ceilings

The white painted ceiling enhances the reflection of light from the slim LED panel light to provide comfortable, uniform lighting. 2 vandal-resistant ceilings are available.



Slim LED plate



Steel Lightbox, vandal-resistant



Steel Grille, vandal-resistant

Floors



Natural Black Vinyl



Concrete Dark Grey Vinyl



Concrete Chalk Vinyl

Hardwearing, easy-to-clean vinyl in a choice of three colours. You also have the possibility to supply your own flooring (recess ≤ 25 mm).

Handrails



Chrome-plated aluminum, straight fixing

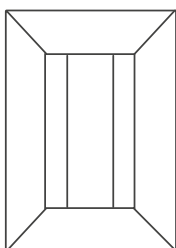


Stainless steel satin, straight fixing

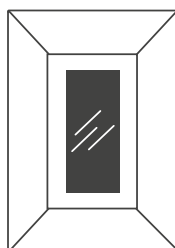
The standard handrail is a robust oval tube in chrome-plated aluminum with curved ending. Optional: round satin stainless steel handrail with curved ending.

Mirrors

A mirror in 5 mm tempered safety glass is included on the rear wall, or on the side wall for elevators with a double entrance. Mirrors make the cabin feel more spacious and create appealing ceiling light reflections.



Without mirror



Partial-width and partial-height

Colours, options and specifications are subject to change. All cabin decor options illustrated in this brochure are for illustrative purposes only. The samples shown may vary from the original in colour and material. Patterned samples not to scale. Consult your TK Elevator sales representative about our cabin designer tool and samples.

SELECTED FEATURES AND OPTIONS

Comfort

Accessibility

Door open/close and alarm push-button	■
Big push-buttons with Braille lettering	■
Round green frame in main floor push-button	■
Adjustable sound level (35-65 dBA)	■
Luminance contrast in fixtures	■
Induction loop for hearing-impaired passengers	□
XL horizontal COP with XL push-buttons	□

Access control

Cancellation calls by double click in COP	□
Key and Eurokey switch in COP/LOP for access/functions	□
Encoded car calls (ECC)	□
Preference/Independent service of COP	□
Out of service LOP	□
Prepared for card reader LOP/COP	□

Others

Car ventilation fan	□
CCTV multimedia travelling cable	□

Performance

Parking level in main landing floor	■
Building management system (BMS)	□
Extended Building Management System (BMS)	□

Layout

Reduced overhead	□
Reduced and extra-reduced pit	□
Machine room	□

Efficiency

Energy-saving cabin LED lighting	■
Energy-saving shaft LED lighting	■
Cabin lighting stand-by	■
Sleep mode	□

Safety & regulations

Light curtain protection	■
Emergency lighting in cabin 3 h	■
Automatic evacuation to next landing	■
Automatic evacuation to any landing	□
Two-/three-way intercom	□
Safety gear on counterweight	□
Water pit sensor	□
Halogen-free shaft wiring (except for the motor and travelling cable)	■
Doors fire rating EI20	■
Doors fire rating EI60 / EI120 / EW60	□

EN 81-20/50, Lifts construction and components testing	■
EN 81-28, Emergency call system	■
EN 81-70, Accessibility to lifts	□
EN 81-71, Vandal-resistant (components), partially Cat.1	□
EN 81-73, Fire evacuation	□
EN 81-77, Seismic, Category 0 / 1, 2, 3	■ / □

Design

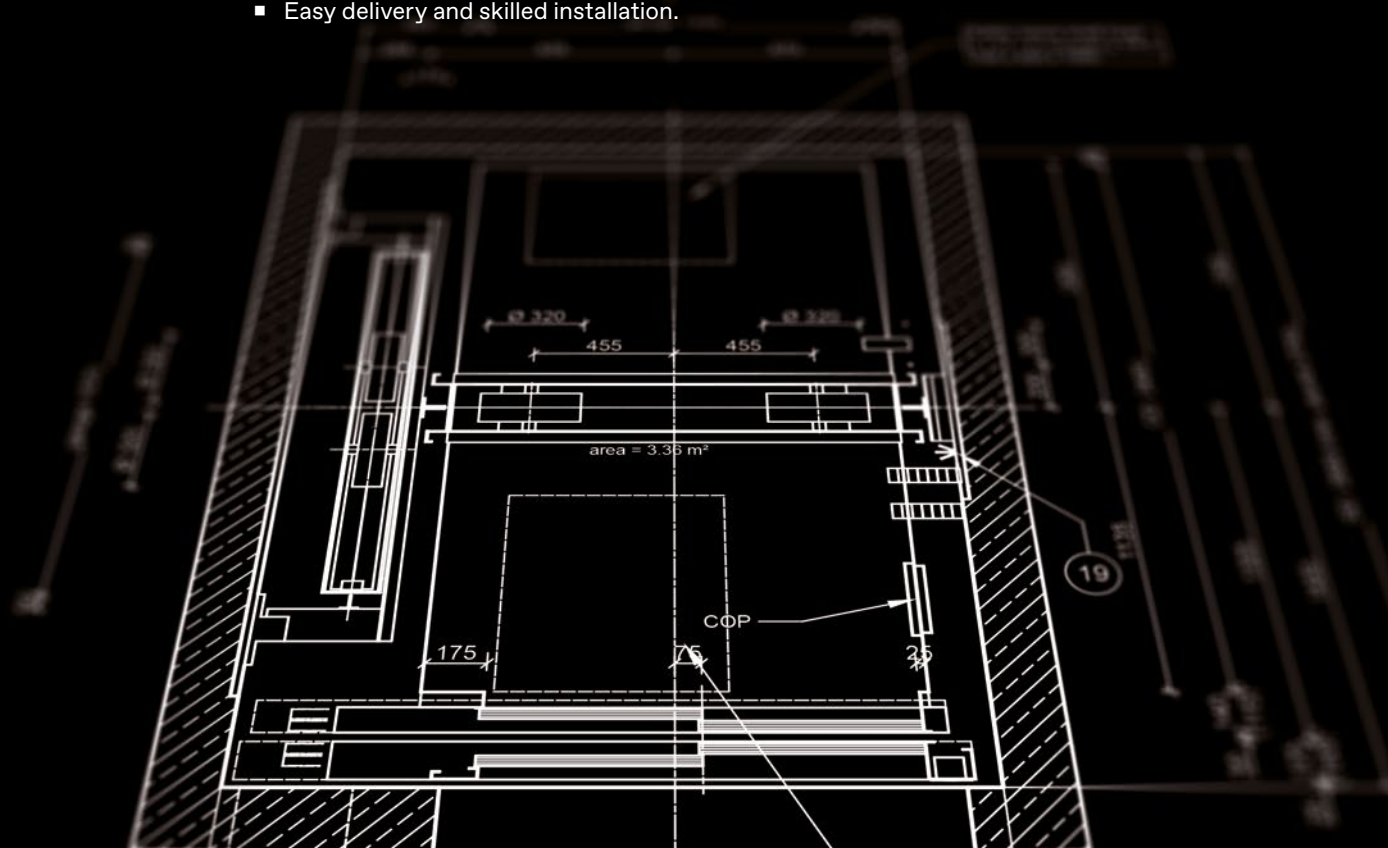
Predesigned cabins	■
Vandal-resistant false ceiling	□
Preparation for customer-supplied flooring ≤ 25 m	□
Stainless steel COP/LOP	■
Glass faceplate for COP/LOP	□
Vandal resistant COP/LOP	□
Double vertical/horizontal COP	□
Vandal-resistant push-buttons	□
TFT 3.5" display in COP, functions/direction	■
TFT 3.5" display in LOP, functions/direction	□
LIDC Landing arrow indicator in car portal	□
LOP, LIP and LDIP surface-mounted on door frame or wall	□
Slim LOP and LID, surface-mounted on door frame or wall	□
Selectable controller cabinet position	□
Landing doors in primed coating RAL 7032, for painting at jobsite	■
Landing doors in ferritic stainless steel Gr.220D (AISI 441)	□
Landing doors in stainless steel Linen	□
Cabin doors in ferritic stainless steel Gr.220D (AISI 441)	■
Cabin doors in stainless steel Linen	□

□ Optional product feature ■ Standard product feature

To discover the other options available for synergy 100, please contact your local TK Elevator sales representative. The details quoted in this sheet can only be viewed as binding when confirmed expressly in writing.

SUCCESS BEGINS WITH A GREAT PLAN

- We support you from the first idea through to completed installation.
- Our highly experienced commercial team will advise you on the best mobility solutions to meet your requirements.
- Easy delivery and skilled installation.



synergy 100 in-planner tool

Make the most of your building space and find the optimal dimensions for your new synergy 100 cabin. All you need is either the shaft or cabin measurements. For new installations, you can simply find the smallest possible shaft dimensions for a specific cabin size.



plan-synergy100.
tkelevator.com

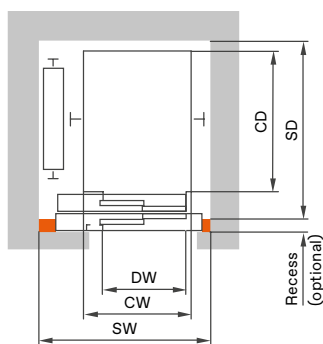
Technical product scope

Door options

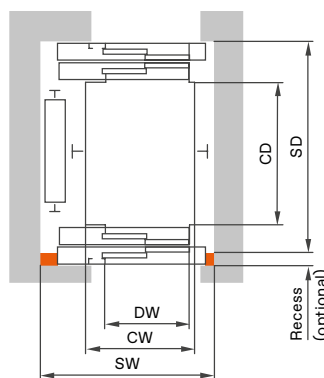
Shaft planning layout

Shaft layout with side-opening door L2

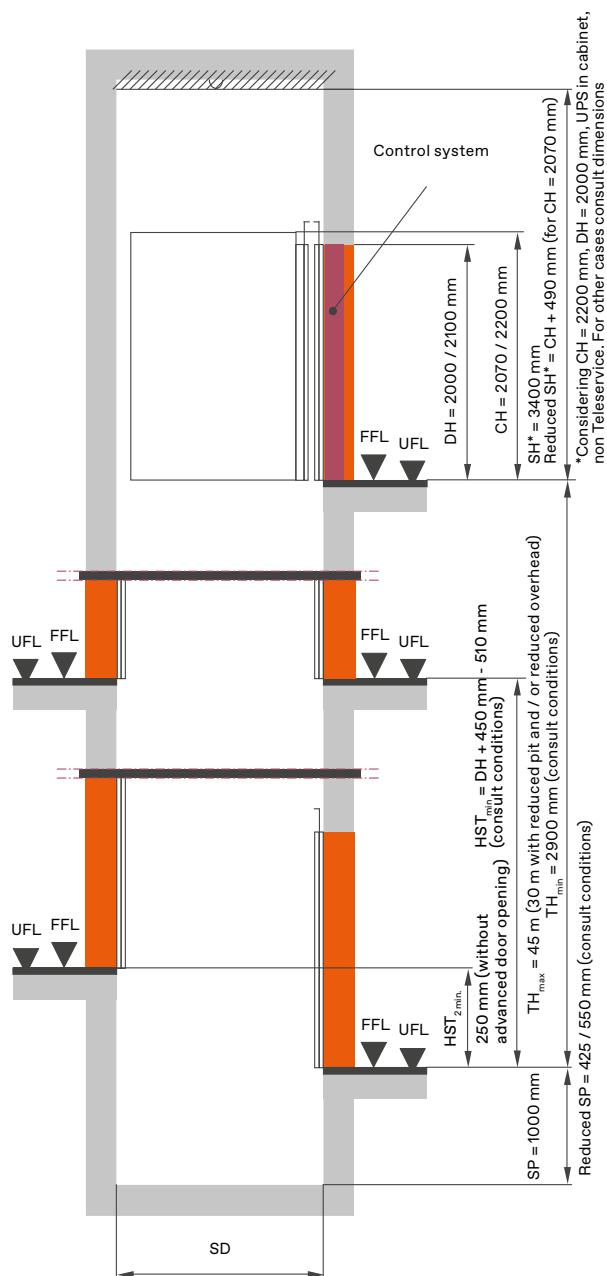
Single entrance



Double entrance

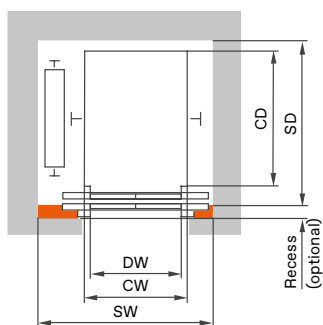


Vertical section

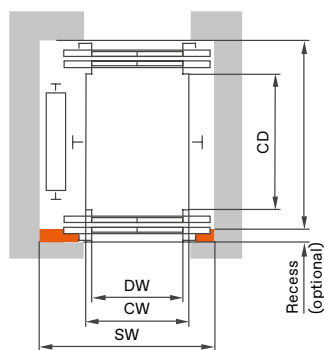


Shaft layout with central-opening door C2

Single entrance



Double entrance



Key:

CW: car width	DW: door width
CD: car depth	DH: door height
CH: car height	FFL: finished floor level
SW: shaft width	UFL: unfinished floor level
SD: shaft depth	TH: travel height
SH: shaft head	HST: min. height between floors
SP: shaft pit	



The values shown correspond to a generic installation. Please contact your TK Elevator sales representative for guaranteed shaft dimensions for specific projects, especially for reduced shaft head and/or pit. During the planning phase, all applicable regulations stipulated by relevant notified bodies and all applicable national regulations should also be considered.

SYSTEM				CABIN		DOOR		SHAFT													
Rated load (kg)	Passengers	Speed (m/s)	Travel height max. (m)	Car width x car depth (mm)	Car height (mm)	Type of entrance	Door type	Door width (mm)	Door height (mm)	Shaft width (mm)	Shaft width (mm) - Full front	Shaft depth (mm) - Door in recess & full front	Shaft depth (mm) - Door partially in shaft	Shaft depth (mm) - Door in shaft	Shaft pit (mm)	Shaft head (mm)					
450	6	1.0	45	1000 x 1250	2070/2200	S/D	L2/C2	800/900	2000/2100												
					2200	S	L2	800	2000	1500	1505	1550	1610	1675	1000	3400					
								900	2000	1600	1600	1550	1610	1675	1000	3400					
						D	L2	800	2000	1500	1505	1680	1830	1930	1000	3400					
								900	2000	1600	1600	1680	1830	1930	1000	3400					
						S	C2	800	2000	1780	-	1515	1545	1605	1000	3400					
								900	2000	1980	-	1515	1545	1605	1000	3400					
						D	C2	800	2000	1780	-	1610	1700	1790	1000	3400					
								900	2000	1980	-	1610	1700	1790	1000	3400					
					450	6	1.0	45	1000 x 1300	2070/2200	S/D	L2/C2	800/900	2000/2100							
										2200	S	L2	800	2000	1500	1505	1600	1660	1725	1000	3400
													900	2000	1600	1600	1600	1660	1725	1000	3400
	D	L2	800	2000						1500	1505	1730	1880	1980	1000	3400					
			900	2000						1600	1600	1730	1880	1980	1000	3400					
	S	C2	800	2000						1780	-	1565	1595	1655	1000	3400					
			900	2000						1980	-	1565	1595	1655	1000	3400					
	D	C2	800	2000						1780	-	1660	1750	1840	1000	3400					
			900	2000						1980	-	1660	1750	1840	1000	3400					
630	8	1.0	45	1100 x 1400						2070/2200	S/D	L2/C2	800/900	2000/2100							
										2200	S	L2	800	2000	1600	-	1700	1760	1825	1000	3400
													900	2000	1600	1605	1700	1760	1825	1000	3400
						D	L2	800	2000	1600	-	1830	1980	2080	1000	3400					
								900	2000	1600	1605	1830	1980	2080	1000	3400					
						S	C2	800	2000	1795	-	1665	1695	1755	1000	3400					
								900	2000	1980	-	1665	1695	1755	1000	3400					
						D	C2	800	2000	1795	-	1760	1850	1940	1000	3400					
								900	2000	1980	-	1760	1850	1940	1000	3400					
					1000	13	1.0	45	1100 x 2100	2070/2200	S/D	L2/C2	800/900	2000/2100							
										2200	S	L2	900	2000	1600	1610	2400	2460	2525	1000	3400
													D	L2	900	2000	1600	1610	2530	2680	2780
	S	C2	900	2000						1980	-	2365	2395	2455	1000	3400					
			D	C2						900	2000	1980	-	2460	2550	2640	1000	3400			

Key: S: Single entrance, D: Double entrance, L2: Side-opening door with 2 panels, C2: Central-opening door with 2 panels

Note: Optional reduced SP = 425/550 mm and reduced SH = CH+490 mm, for CH=2070 mm and self supporting cabin at 1 m/s.



Your service partner: always there

Your elevator is in good hands. With one of the leading providers of urban mobility.

On par with our innovative elevators and escalators engineered and manufactured in Europe, the provision of high-quality maintenance and repairs is a core priority at TK Elevator. Our service concept is built on the basis of ensuring maximum passenger comfort, convenience and safety at all times while protecting

the long-term value of your investment – and it extends beyond our own products.

Regardless of make and model, we can cover all your maintenance and service requirements, which is an invaluable advantage for TKE customers.

Key features of our service offering

- Rapid 24/7 service through our 1,000+ regional branches
- Service packages for all major products or models on the market
- Expert service technicians backed by a global network of service centers, providing them with real-time support on third-party products and models
- Customised, state-of-the-art diagnostic tools to interface with other manufacturers' control systems
- Compliance with all applicable laws and regulations
- Large stock of spare parts for all major lift brands on demand, and efficient logistics capable of swift delivery

MAX – the game changer that keeps people moving

Introducing MAX: the elevator industry's first real-time, cloud-based predictive maintenance solution. Our smart, machine learning Internet of Things (IoT) solution dramatically increases elevator availability by reducing out-of-service situations through real-time diagnostics.



Data gathering



Precise diagnostics



Predictive intervention

MAX is only available in selected markets. Consult your TK Elevator sales representative for further information.

「YOUR INNOVATION PARTNER」

elevators and escalators under maintenance

countries of customers

1,200,000 100+

employees

50,000+

service available for customers

locations

24/7 1,000+

service technicians

24,000+



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