SilensPRO®
REVOLUTION NANO

SilensPRO®
REVOLUTION MICRO

100-630 Kg

Machine-roomless lifts

Revolutionary in...

Technological terms

WORLD FIRST

Silens Pro *Revolution*® is the first MRL lift that operates with the new **ALEC system *(Automatic Learning Elevator Control)*.**

ALEC is a new technological concept based around the *machine learning* concept which gives the lift a new level of intelligence never seen before.

- **VARISPEED**
  Brand-new technology that converts the **Silens Pro *Revolution*®** in to the first lift on the market that travels faster that it's nominal speed..
- **SIRES** (Shaft Intelligent Revolutionary Elevator System)

  A concept based on a PESSRAL device with an electronically activated overspeed governor, electromechanical safety gear and absolute positioning that:

  - Guarantees maximum **safety** of passengers.
  - Allows **automatic shaft learning,** drastically reducing commissioning costs.
- **DIRECT APPROACH SYSTEM**
  Guarantees the smoothest and most precise ride on every single trip.
- **SMARTECH CAR AND LANDING INDICATORS**
  New 7" car and landing indicators that keep passengers up to date in real time regarding their trip.

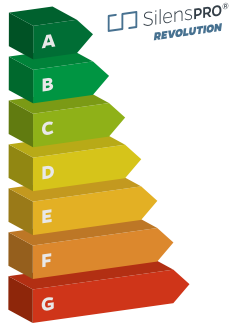
A reduced and competitive overall cost

- Provided with **highly pre-assembled parts.**
- The electrical part is supplied **pre-wired** including the exact gearless machine which is shipped with the lift and **pre-tested.**
- **Fewer components to be installed** in the shaft (no limit switches, no magnets, no pencil switches, no magnetic detectors...)
- **Automatic shaft learning** before commissioning drastically **reducing installation costs.**

Its energy-efficiency

Our **Silens Pro *Revolution*®** lifts have been awarded the maximum possible energy-efficiency ratings according to the VDI 4707 and ISO 25745-2 standard.

- The incorporation of **Varispeed** and **the Direct Approach System.**
- The **gearless drive unit** significantly lowers energy consumption and does not require lubricants.
- **Stand-by mode** is activated whenever the lift is not in use.
- Energy-efficient lighting with **LED spotlights.**
- Designed and built in compliance with **ISO 14001,** the international standard which sets the basis for an **effective environmental management system.**



Freeing up space in existing buildings

With the **Silens Pro *Revolution* Nano® (100Kg-320Kg)** and the **Silens Pro *Revolution* Micro® (375Kg-630Kg)**, the breakthrough technology of the **Silens Pro *Revolution*** range is now available for the transformation of existing buildings: strikingly versatile, these two cutting-edge lift systems are perfect for installation in shafts of limited dimensions or as a replacement for outdated lifts, offering a range of sizes and configurations that is unique in the market.

SilensPRO® REVOLUTION NANO SilensPRO® REVOLUTION MICRO

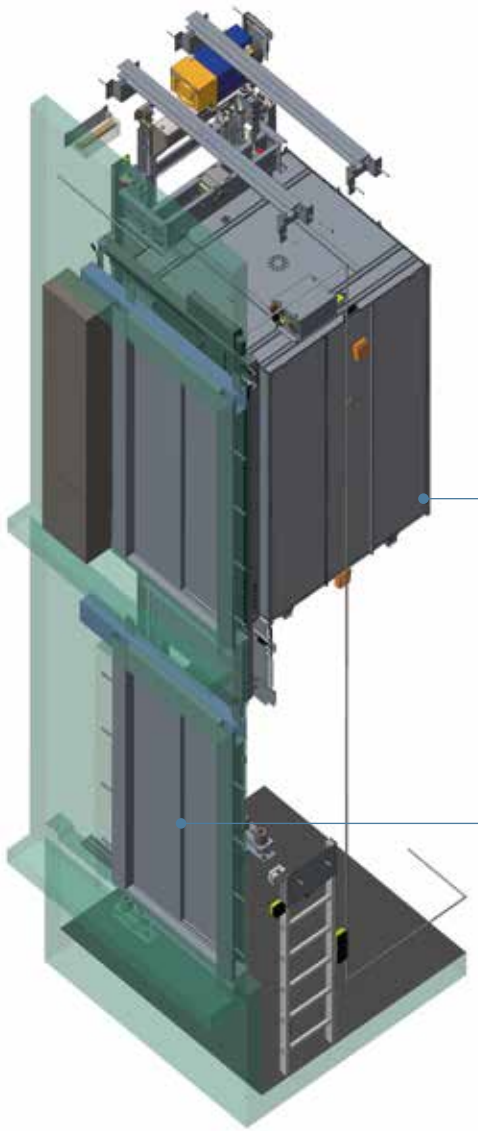
The **Silens Pro *Revolution* Nano®** and the **Silens Pro *Revolution* Micro®** have been specially designed so that the mechanical components of the system take up less space inside the shaft, which enables passengers to enjoy roomier, more spacious lift cars. As a result, in standard-sized shafts, **the Silens Pro *Revolution* Nano® and the Silens Pro *Revolution* Micro® allow one more person to travel than other lifts available on the market.**

SHAFT DIMENSIONS *	OTHER LIFTS			SPR NANO & MICRO		
	Load	People	Clear opening (C/O)	People	Load	Clear opening (C/O)
1300x1350	320kg	4	2P 700	+ 5	375kg	2P 750
1350x1500	375kg	5	2P 700	+ 6	450kg	2P 800
1500x1600	450kg	6	2P 800	+ 8	630kg	2P 850
1500x1750	525kg	7	2P 800	+ 8	630kg	2P 850

The information shown is for single entry lifts with automatic 2 panel side opening doors.

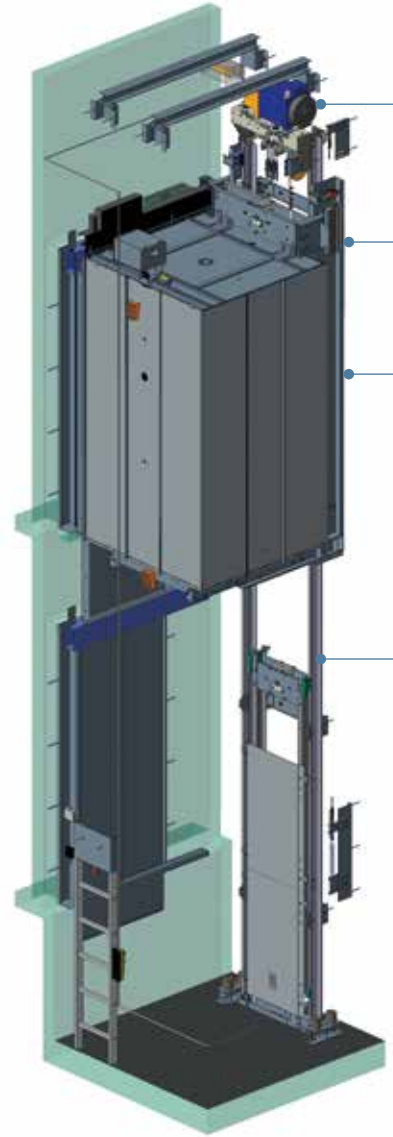
- In full accordance with the EN 81-21 standard, The **Silens Pro *Revolution* Nano®** and the **Silens Pro *Revolution* Micro®** can be installed in **shafts with a reduced-size pit.**
- On top of that, their revolutionary design allows **wider door clearances** than other lifts in the same-sized shafts, making passenger access to the car easier and less restricted.
- The **Silens Pro *Revolution* Nano®** and the **Silens Pro *Revolution* Micro®** can be installed inside **traditional masonry-built** shafts as well as in the interior of **prefabricated modular structures.**
- Where there is a **through car-entrance configuration**, different door types can be installed at the two entrances, making these lift solutions **supremely flexible** when it comes to matching a building's particular needs and design aesthetic.

High standards on a global scale



The platform, flooring and roofing of the **lift car**, together with its sling, are built of high-strength galvanised steel to form a very robust unit.

Automatic fire-rated doors, side or central opening are safe and realiable. Available in brushed stainless steel or epoxy finish. Other door types and models are also available.



Gearless machine: compact & energy efficient as well as easier to install due to its reduced weight.

State-of-the-art **electronic overspeed governor.**

Ultra-rigid and lightweight cantilever sling made of high-strength steel that allows for an extensive range of opening configurations. A modern electrically activated safety gear replaces the traditional linkage bar arrangement between traditional safety gear blocks.

The **machined guide rails** are of the highest quality and are delivered cut to size to suit the particular project.

In-shaft safety devices (limit switches, absolute positioning, door zone magnets, final limits) are integrated into a PESSRAL device.

In full compliance with: 2014/33/EU Directive · EN 81-20/50 Standards · EN 81-28 Remote alarms // *Optional: EN 81-73 · EN 81-70

SPR Nano® and SPR Micro® also in the single-phase version

Silens Pro *Revolution* Nano & Micro® are available for single-phase buildings across the whole load range simplifying the steps needed for installation.

Minimum building requirements

Silens Pro *Revolution* Nano & Micro® can be connected directly to the building's single-phase 220V electrical grid, thereby reducing the cost of installation and launch.

Less paperwork

Property owners will be grateful for **not having to register the building for three-phase power** with their energy company.

The quickest of their class

Thanks to Varispeed technology, cars can reach a speed of **1 m/s without increasing power consumption,** depending on the number of passengers.

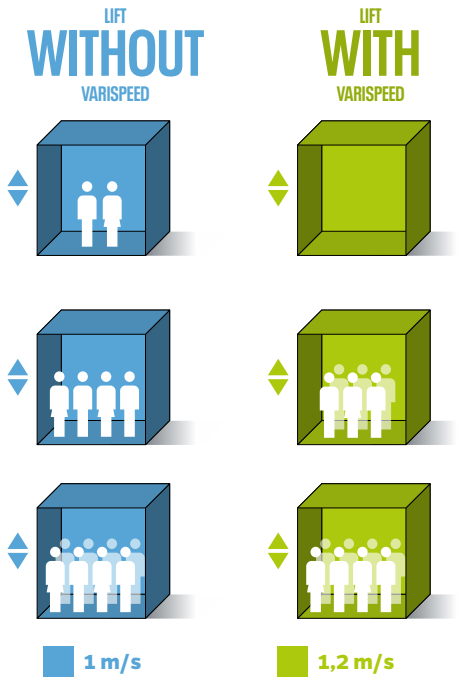
Always available

They do not rely on the charging level of traditional batteries; they are powered directly from the electrical grid instead.

Varispeed: Faster travel for optimum traffic .

For the first time as standard, the **Silens Pro *Revolution*®** incorporates groundbreaking **Varispeed** technology that allows the lift to travel faster, to cut passengers' travel and waiting times and to increase lift traffic capacity in the building.

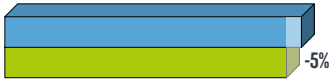
Varispeed allows lifts to travel faster than their rated speed.



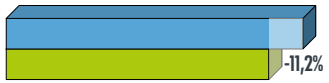
Travel up to **20% faster.**

Reduction of **waiting times.***

Reduced energy consumption.**



Reduced travel time to destination.***



** & ***: based on traffic analysis during the late evening in a residential building with 24m travel, 9 floors and an occupation of 10 people per floor.*

***: based on data collected of random traffic in a residential building over 6 floors with 15.5m travel.*

Intelligent technology

Every **Silens Pro *Revolution*®** is an integrated system, made up of interconnected components which communicate in real time improving levels of safety, client s experience, installation process and maintenance tasks.

Direct Approach System

Our **Direct Approach System** allows the lift's control system to calculate the optimum speed curve for each trip, avoiding the delays typically experienced with lifts that do not benefit from this function.

As a result, lift travel and waiting times are drastically reduced and passenger experience in terms of comfort, smoothness of travel and car-to-landing stopping accuracy are significantly improved.

On top of that, the Direct Approach System gets rid of the need for a series of sensors and devices inside the lift shaft, thereby simplifying, shortening and economising on the lift installation process and subsequent maintenance work.

SIRES, Intelligence reinvented

For the first time, **Silens Pro *Revolution*®** includes as standard **SIRES *(Shaft Intelligent Revolutionary Elevator System).*** The concept is based around a PESSRAL* device providing absolute positioning in the lift shaft using the latest magnetic tape technology.

SIRES provides continuous real-time information on the lift car's location in the shaft, precise to within less than 1mm. **SIRES** allows us to optimise electromagnetic devices and delivers many other benefits (see adjacent box).

WHAT DOES SIRES PROVIDE?

- **Automatic shaft learning** drastically reducing installation costs.
- **Installation & maintenance:** faster, easier and more adaptable.
- **Lift car location:** always available in real time.
- **Fault detection:** made simpler by its advanced diagnostic capacities and the removal of outdated components.
- **Covers various safety functions** of the EN81-20 / 50 standard such as bottom limits, uncontrolled movemement, overspeed control and triggering.
- It also covers other safety functions such as door area positioning for the emergency rescue control system.
- The PESSRAL device is **silent and resistant to dust, smoke and humidity.**

** The PESSRAL system is designed for control, protection or monitoring based on one or more programmable electronic devices, including all elements of the system such as power supplies, sensors and other input devices, data highways and other communication paths, and actuators and other output devices, used in safety related applications.*

Modern design - all to the customer's taste

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

200 *Revolution* Series

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

- **In-car lighting:** direct, using LED spotlights from either range.
- **Lift-car doors and front returns:** finished in stainless steel.
- **Car operating panel:** BCR 1 model which includes the 7" TFT colour indicator. Other operating panels available.
- Optional **skirting** in anodised aluminium finish.
- **Car floors** available in hard-wearing polymer options.
- **Handrails** (optional): finished in AISI 304 stainless steel. Lift car is also available with handrails on all walls or without.
- **Mid-height mirror.**
- Design in full accordance with 2014/33/EU Directive, EN81-20, EN81-50 and EN81/70.

Revolution ST Series

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

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

300 *Revolution* Series

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

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

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

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

Car wall panels

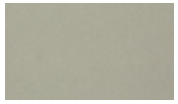
Light Reflectance Value

200 Revolution® series · Skinplate


PB10 35


PB15 51

PB20 64


PB25 37


PB30 53


PB35 18

PB40 64


PB50 43


PB55 57


PB60 15


PB65 32


PB70 15


PB75 7


PB80 30


P222 72


P422 32


P432 35

200 Revolution ST® series · Stainless steel


Inox 45


Inox Linen 20


Elephant skin 22

300 Revolution® series · High-pressure laminates


PM 20 7


PM 25 44

PM 35 73


PM 40 34


PM 45 31


PM 50 24


PM 55 9


PM60 7


PM65 40


PM70 35


PM75 14


PM80 10


PM85 13

Flooring

Rubber


S45GN 4


S42GB 27


S101 10


S102 26


S52GN 15


S62GG 58

Granite


Pearl grey 35


Clear labrador 35

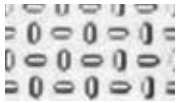

Black labrador 5

Marble


White Italia 85


Brown portuguese 65

Stainless steel


S2_I 39


S35_I 45

Aluminium

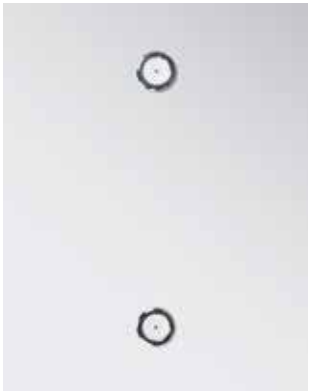

S3AL 42

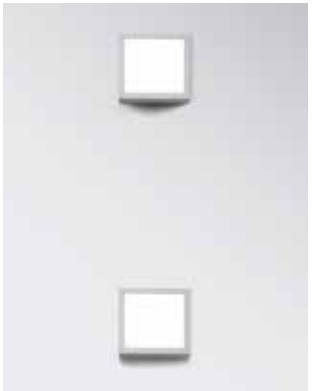
Local flooring preparation 25mm available on request.

Handrails


PSR 45

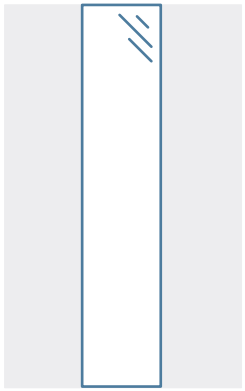
Lighting


Spot LED 80


Spot LED square 80

Mirrors


Mid-height mirror*


Height mirror**

Wide safety mirror from above the handrail to the ceiling

*** Tall safety mirror from skirting level to the ceiling*

Car operating panels, landing push stations & indicators

Car operating panels

BCR1 18

BIR1 75

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

BCR2 18

BIR2 75

Car push-buttons

PCEB* US91(**) y (***) PCMT(**)

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

** *For BIR1 and BIR2 panels only.*

*** *Push buttons US91, 10 floor limit.*

Car display

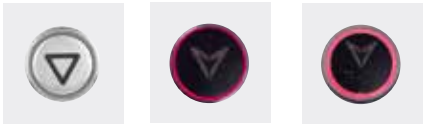
Smartech (7")

Landing Push Stations

BER1* BER2** BER3***

** Push buttons installed directly in the door frame.*
*** Flush mounted on door frame.*
**** Surface mounted on door frame.*

Landing push buttons



PEEB US91* PCMT**

* *Only for BER2 push station.*

** *Only for BER2 and BER3 push stations*

Landing indicators

Display Smartech HR*

HLER - Cabina**

FERV

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

Lift car Smartech display

Lift availability before travel

The screen tells you if the lift is available for use.

Smartech AutoTest Function

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

Position & direction

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

Destination floor & time remaining before arrival

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

Speed

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

Energy consumption

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

Arrival at destination floor alert

Informs passengers when the lift reaches the destination floor.

Date & time

Displays the time and date in real time.

Load & passenger capacity

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

Landing Smartech HR Display*

Includes voice synthesiser!

*Optional

Welcome messages

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

Position & direction

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

Flashing LED display by the lift entrance

Alerts passengers to the imminent arrival of the lift.

Situation reports

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

Lift arrival countdown

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

Energy consumption

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

Voice messages

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

All the visual and acoustic messaging has been designed in full accordance with EN81-70 (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).

The best possible choice for lift professionals

The **Silens Pro *Revolution*®** has been specifically designed to assist the work of lift professionals throughout the working life of the lift system.

A fully-integrated solution

The innovative **ALEC system** represents another step in the integration of all electrical and mechanical components of the lift, raising benefits to another level.

Intelligent packaging

Each lift is delivered on-site in packaging designed to facilitate the work of installation personnel. All the lift components and parts are delivered in a logically-organised series of packs that are clearly identified and strictly ordered according to their place in the installation sequence. The lift system comes with all the parts labelled and numbered and with all the detailed checklists, documents and installation manuals required.

Fast & straightforward installation

The **Silens Pro *Revolution*®** can be installed in under 100 hours.

Plug and Play

Thanks to our Plug and Play manufacturing concept our electrical packages are supplied pre-tested and pre-wired to the specific gearless machine that is shipped with the lift.

Quick Spin

Instant synchronisation of the gearless machine and VF drive removing expensive commissioning costs.

Easy to maintain

Maintenance work on a **Silens Pro *Revolution* Nano®** or **Micro®** lift system by the qualified service technician is safe, quick and supremely straightforward.

Permanent technical support service

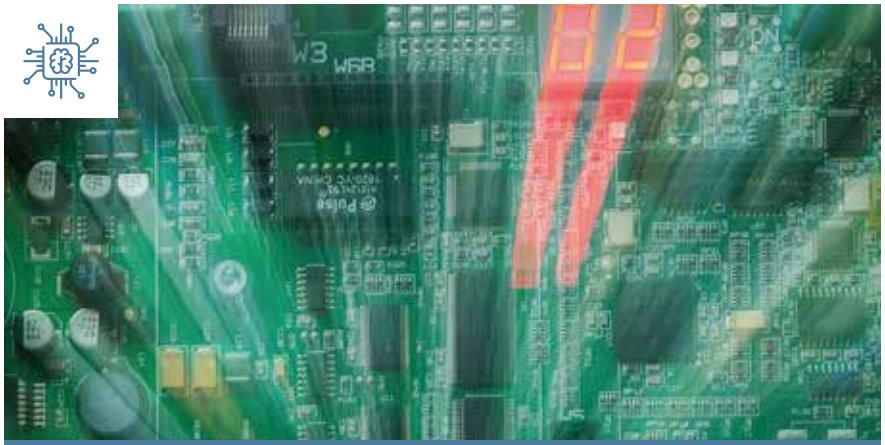
We offer clients all the technical support they require, whether mechanical or electrical: our highly qualified staff advise and assist them in real time and in their own language.

Spare parts guaranteed

The availability of original spare parts is guaranteed, as is the full traceability of all replacement parts installed.

Speed of delivery

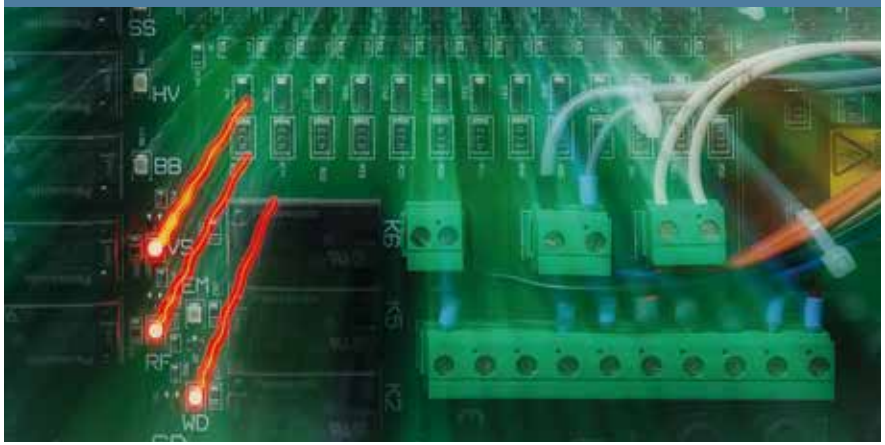
Once an order has been received and confirmed, the corresponding **Silens Pro *Revolution* Nano®** or **Micro®** l lift system will be delivered within just six weeks.



Altamira II control system:
Silens Pro *Revolution*'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 *Revolution*®** range.

Altamira II 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 *Revolution*®** lift range. Therefore, in a **Silens Pro *Revolution*®** 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 inverter and machine operating patterns match the operation of **Altamira II** with the mechanics of every **Silens Pro *Revolution*®**
- 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.

Easy maintenance

- 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.

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.

Homing Mode
The lift car returns to the specified homing floor. You can set any floor as the return floor.

Maximum no. of calls
Limited number of car calls registered.
Anti-vandal mode.

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.

Stand-by mode
Disconnects the lighting inside the car as well as the car and landing displays, thus reducing the electrical consumption of the lift.

Car fan
There is a timer to activate/deactivate the fan.

Service control keyswitch
Only calls made from the car operating panel are registered.

Multiple movement functions

Multiple
A group of up to 4 lifts can be controlled.

Limited out of service
Allows a group of lifts to self-manage a singular lift with continous faults and leave it out of service whilst other lifts handle calls..

Door operation functions

Fast closing of doors
This allows the time between stops to be shortened by means of a push button in the car that can be activated if there are car calls registered.

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.

Signalisation and indicator 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

Manual rescue
Manual rescue can be of two types, one by opening the brake and car movement subject to the balance of the car or by means of a high power UPS and directional push buttons that raise or lower the lift.

Emergency ceiling light in car
In the event of a power cut, an emergency light in the car operating panel illuminates in accordance with EN81-20.

Automatic rescue device
The automatic rescue operation is carried out via a UPS whereby the lift will park at the most favorable floor with the doors open.

Standard Function **Optional Function**

Technical information

How to use the technical information enclosed within this catalogue.

The **Silens Pro *Revolution* Nano®** elevators (100Kg-320Kg) and **Silens Pro *Revolution* Micro®** (375Kg-630Kg) offer a very extensive range of configurations and sizes. In the information enclosed you will find all available configurations for any **Silens Pro *Revolution* Nano®** or **Silens Pro *Revolution* Micro®** equipped with automatic 2 panel side opening (Wittur Augusta Evo model) or manual swing doors. There are other door options available: please contact us for further information.

01 Choose the door type required and number of openings.

02 Check, based on the option chosen in section 01 the technical information tables for the selected product.

03 Select the required shaft width and depth from the configuration table. Then check the field “Load” in the lower corner of the page to confirm the final load of the lift based on the dimensions selected as well as the final car dimensions. If your lift is located in an area of the table with pit or headroom restraints these requirements are to be noted.

04 Check the door clear opening table to confirm the final door panel and frame size. If your lift has more than one entry, please consult the same dimensions on the table for the alternative 90° or 180° opening.

05 In order to confirm that the chosen configuration is feasible, our engineering solution must carry out a final check to confirm the counterweight filler weight balance is correct. If it were not to be viable, we will carry out a technical review to provide an option best suited to your requirements.

SilensPRO® REVOLUTION NANO

SilensPRO® REVOLUTION MICRO

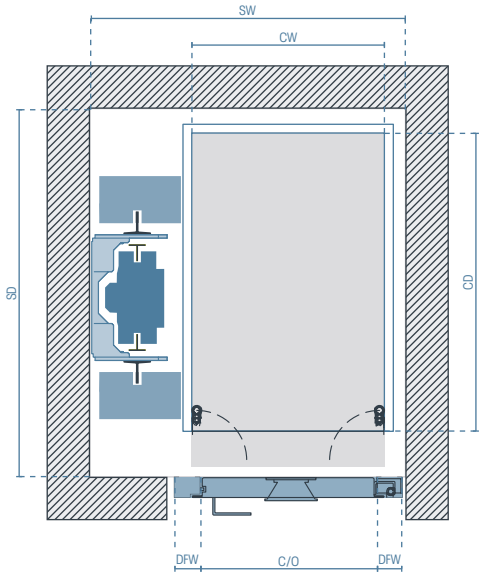
Operational ranges (standard solutions)

Maximum travel	Up to 40 m
Shaft	**Pit** ▸ Minimum: 1050 mm ▸ Minimum EN 81-21: 350 mm, optional marble floor ▸ Minimum EN 81-21: 320 mm (requires project study and does not include marble floor as an option) ▸ Maximum: 1900 mm
	Headroom ▸ Minimum (2175mm car): 3600 mm ▸ Reduced minimum (2000 mm car): 3400 mm
	Space required for mechanical elements: 290mm
	*Shaft width: Car width + 350 mm
Lift car construction in 5mm steps	▸ Minimum depth: 550 mm ▸ Maximum depth: 1450 mm ▸ Minimum width: 550 mm ▸ Maximum width: 1200 mm ▸ Standard height 2175 mm (2000 mm and 2275 mm option in 50mm steps)

Mechanical position
Side

Doors
Manual swing+busmatic

Entrance
Single 0°



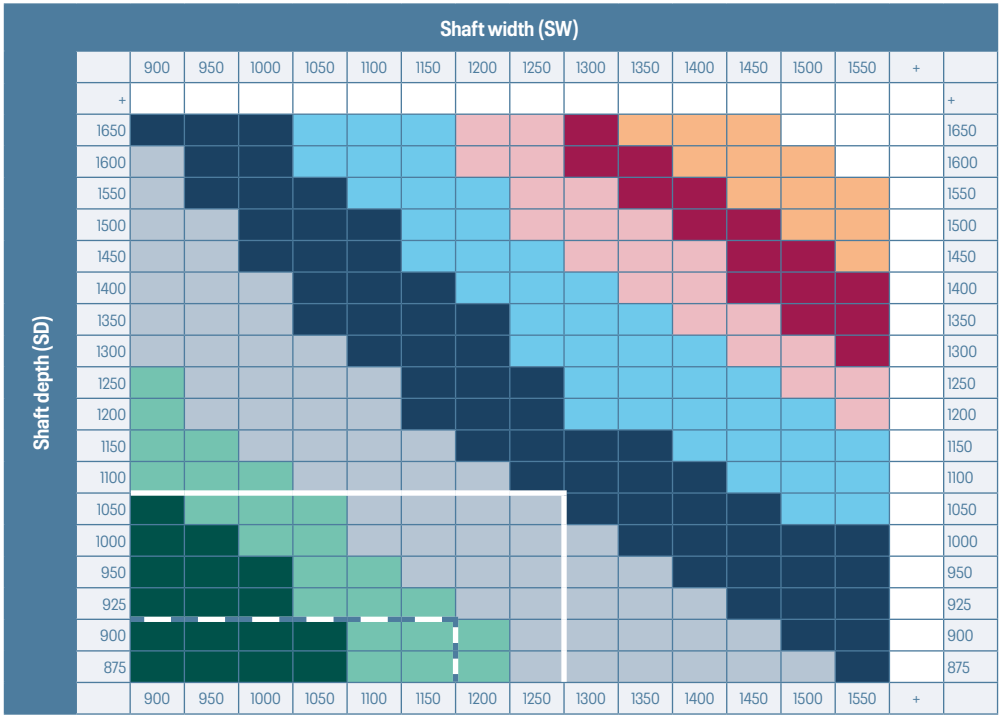
Car dimensions

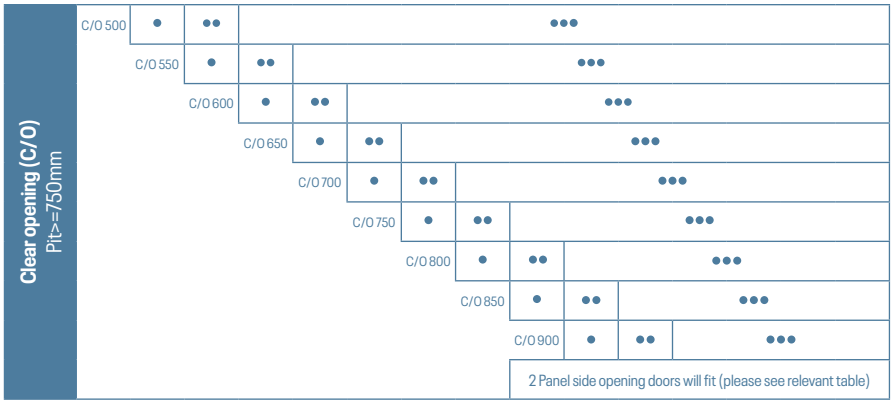
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 200 mm

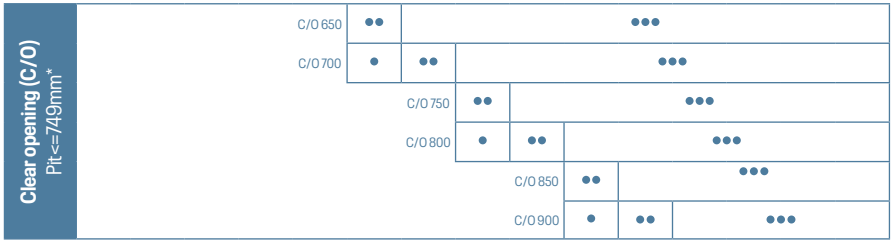
- Maximum car width: 1200 mm
- Minimum car width: 550 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 680 mm

Maximum car area 1,65 m²

Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O) = 650 mm

Minimum pit areas

▬	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject to a **technical study**

Minimum headroom requirements (car height 2175 mm)

▬ ▪ ▬	4600 mm
All others	3600 mm

Load

100Kg 180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

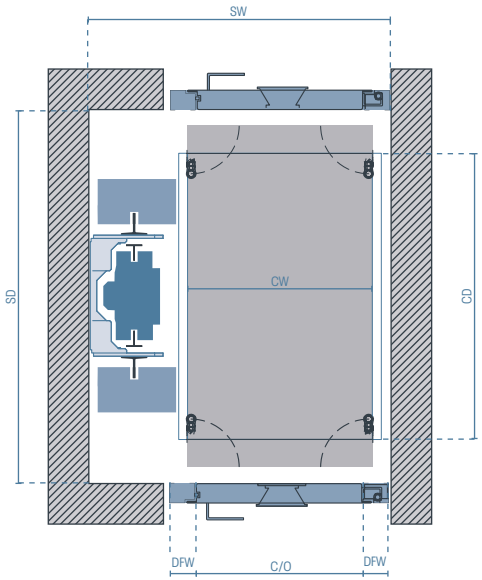
Door frame width

- • Door frame width (DFW): 75 mm
- •• Door frame width (DFW): 100 mm
- ••• Door frame width (DFW): 125 mm

Mechanical position
Side

Doors
Manual swing+busmatic

Entrance
Through car 180º



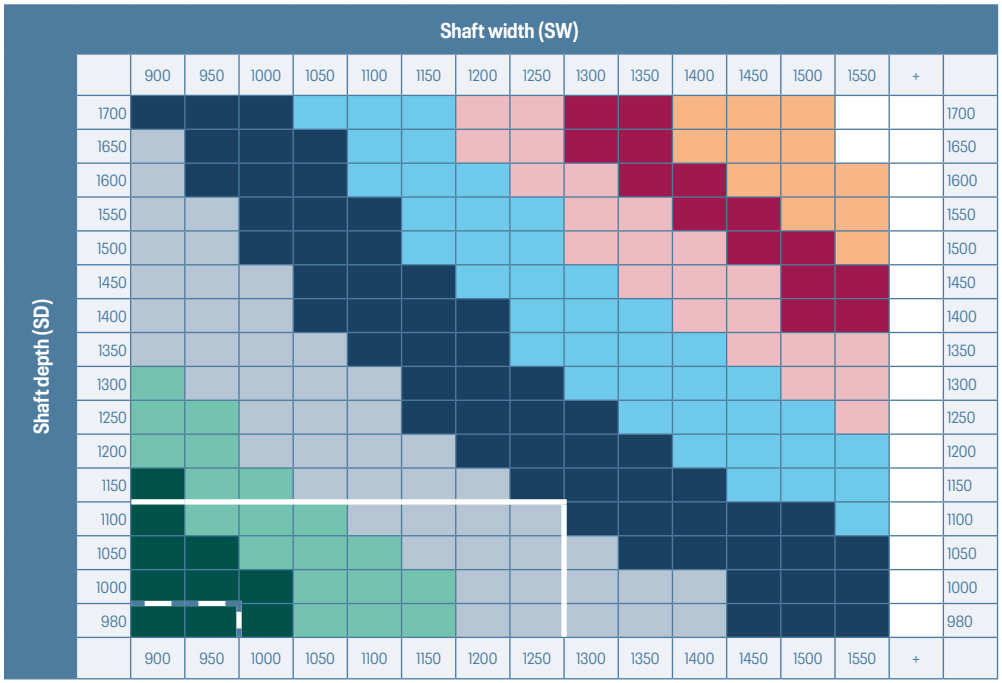
Car dimensions

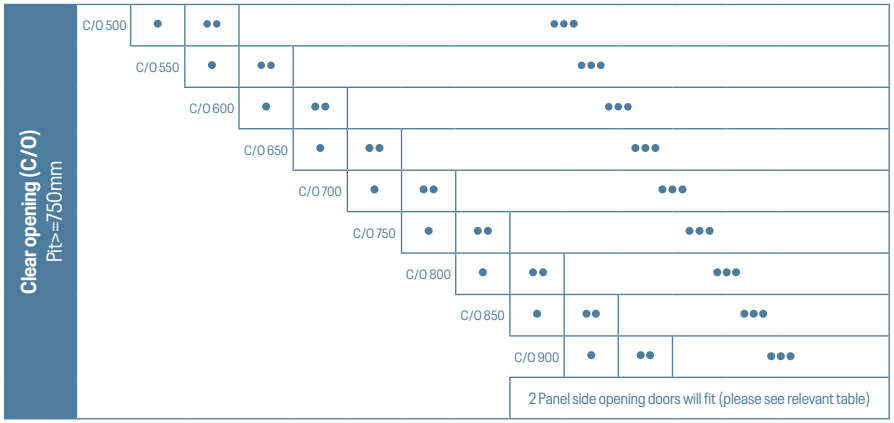
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 260mm

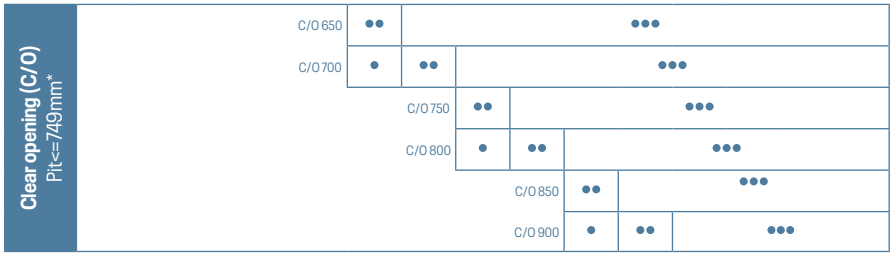
- Maximum car width: 1200 mm
- Minimum car width: 550 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 720 mm

Maximum car area 1,65 m²

Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O)= 650 mm

Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

—	4600 mm
All others	3600 mm

Load

100Kg 180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

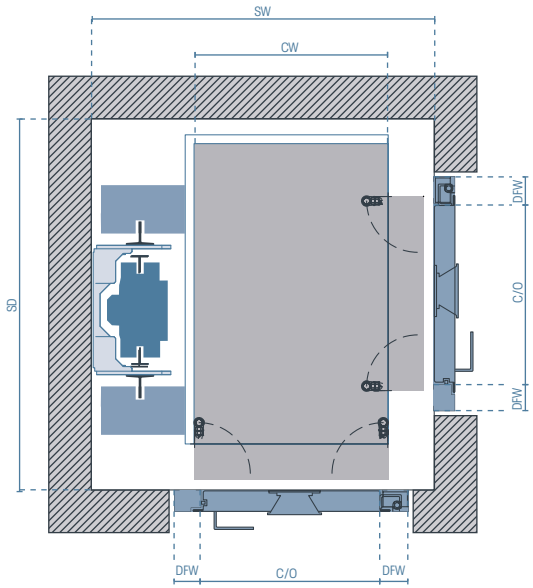
Door frame width

- • Door frame width (DFW): 75 mm
- •• Door frame width (DFW): 100 mm
- ••• Door frame width (DFW): 125 mm

Mechanical position
Side

Doors
Manual swing+busmatic

Entrance
Through car 90° or 270°



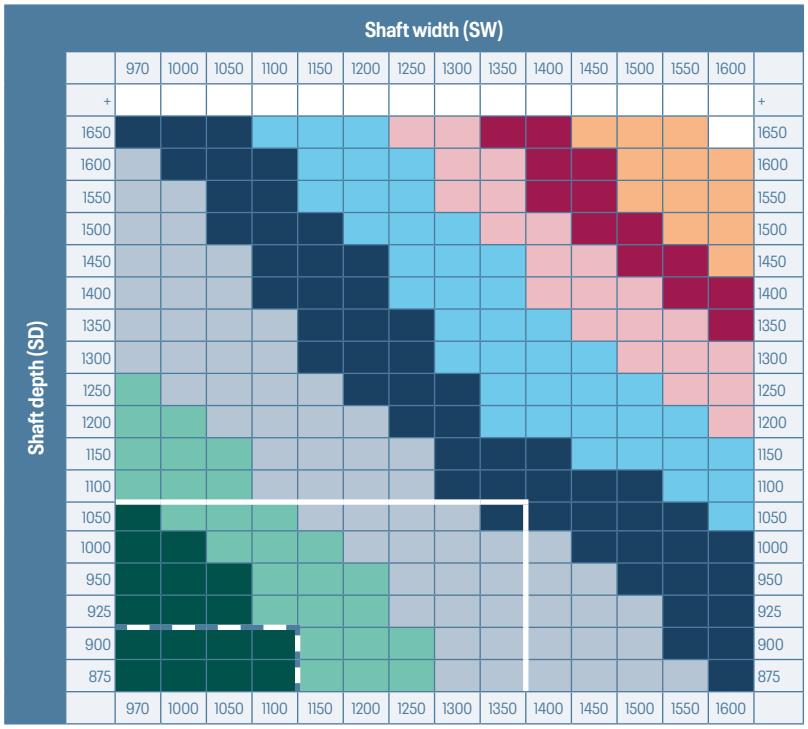
Car dimensions

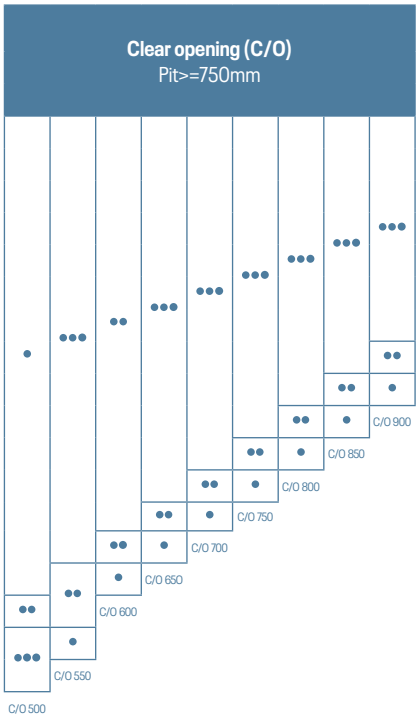
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 420 mm
Car depth = Shaft depth - 200 mm

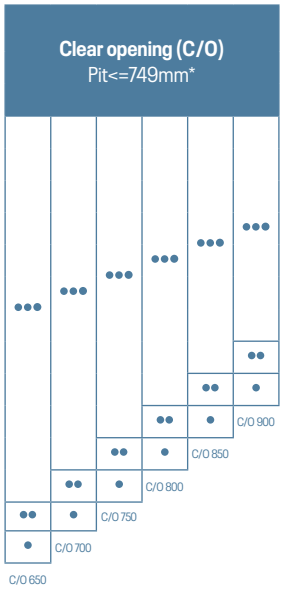
- Maximum car width: 1200 mm
- Minimum car width: 550 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 680 mm

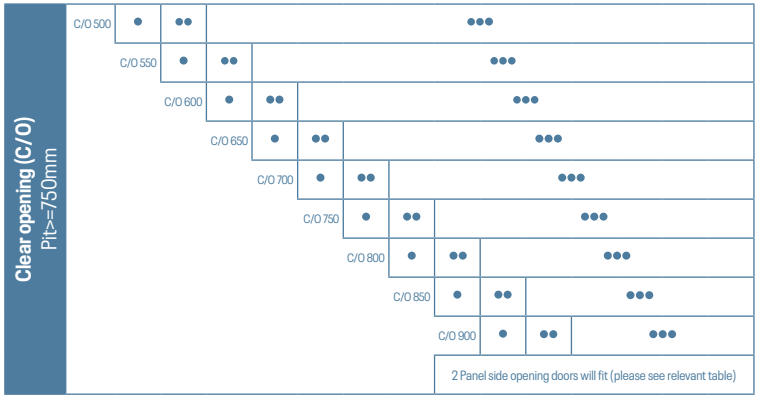
Maximum car area 1,65 m²

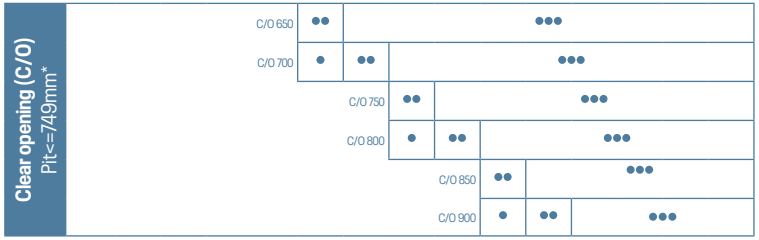
Width and depth of car dimensions in 5mm steps











* Minimum clear opening (C/O) = 650 mm

Minimum pit areas

▬	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

▬ ▬	4600 mm
All others	3600 mm

Load

100Kg | 180Kg | 225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

- • Door frame width (DFW): 75 mm
- •• Door frame width (DFW): 100 mm
- ••• Door frame width (DFW): 125 mm

Mechanical position

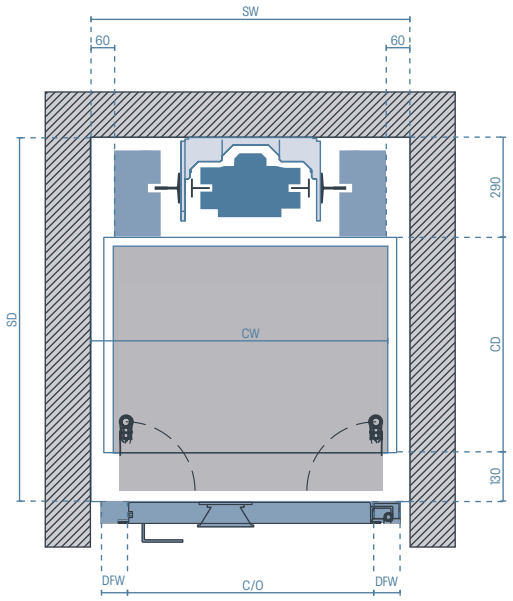
Rear mounted

Doors

Manual swing+busmatic

Entrance

Single 0°



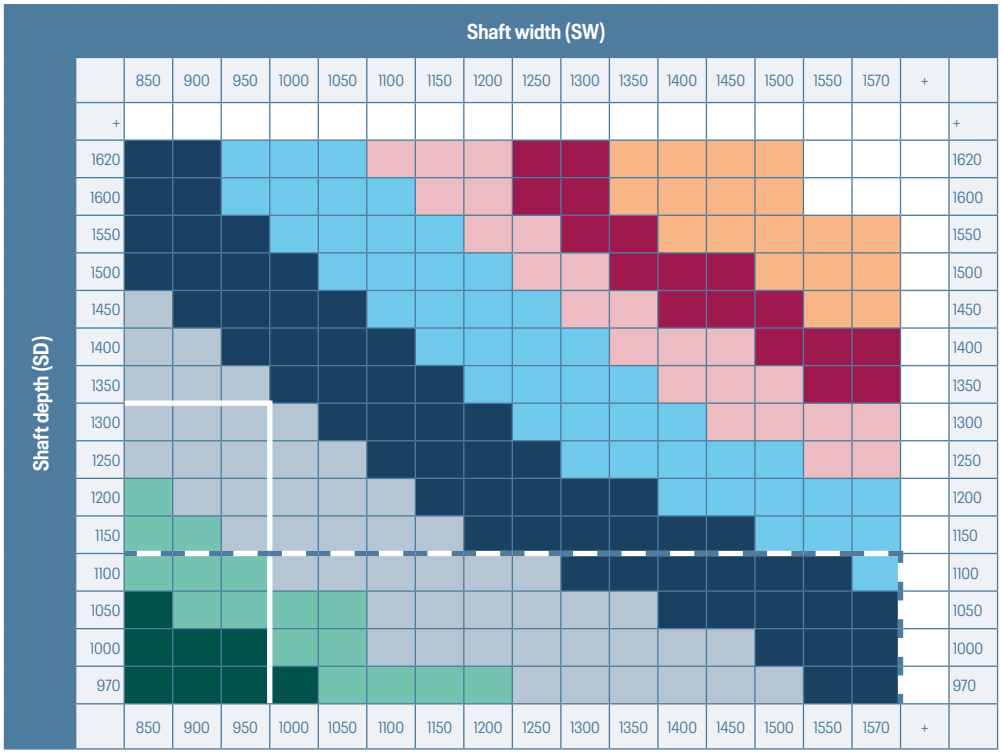
Car dimensions

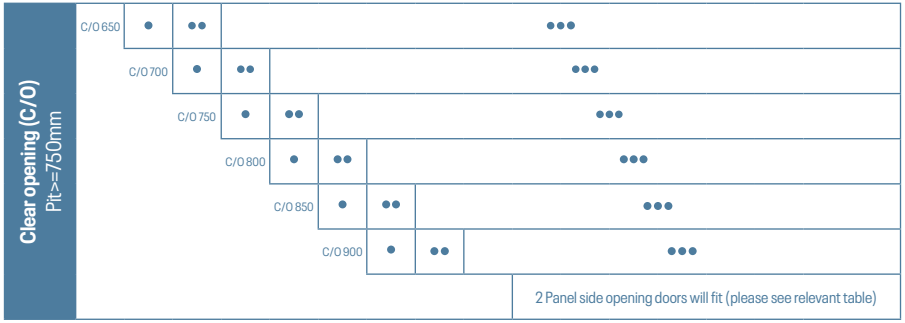
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 120 mm
Car depth = Shaft depth - 420 mm

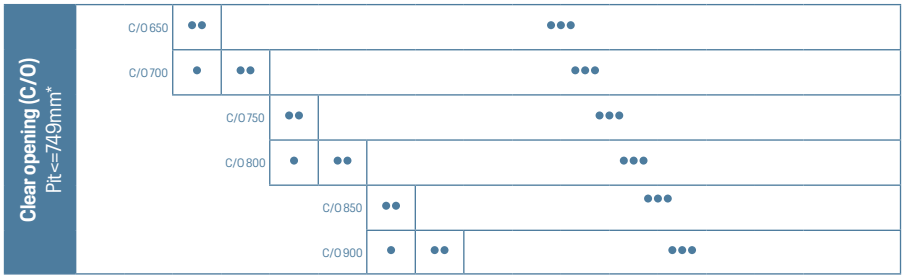
- Maximum car width: 1450 mm
- Minimum car width: 730 mm
- Maximum car depth: 1200 mm
- Minimum car depth: 550 mm

Maximum car area 1,65 m²

Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O) = 650 mm

Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- -	4600 mm
All others	3600 mm

Load

100Kg 180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

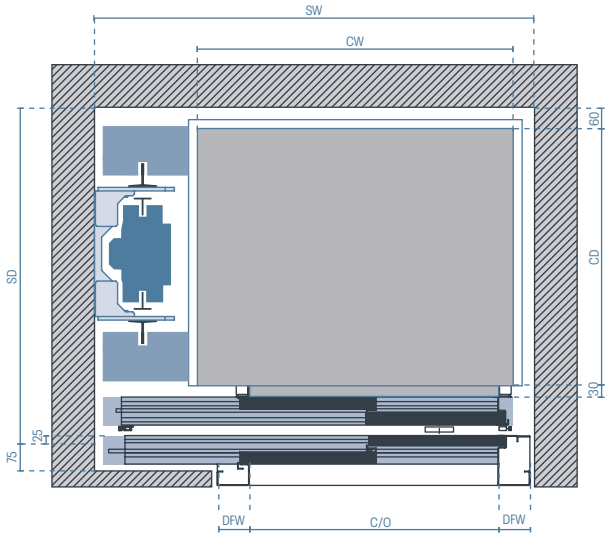
- • Door frame width (DFW): 75 mm
- •• Door frame width (DFW): 100 mm
- ••• Door frame width (DFW): 125 mm

Mechanical position
Side

Doors
2 panel side opening Augusta EVO

Door mounting position
Mounted on landings

Entrance
Single 0°

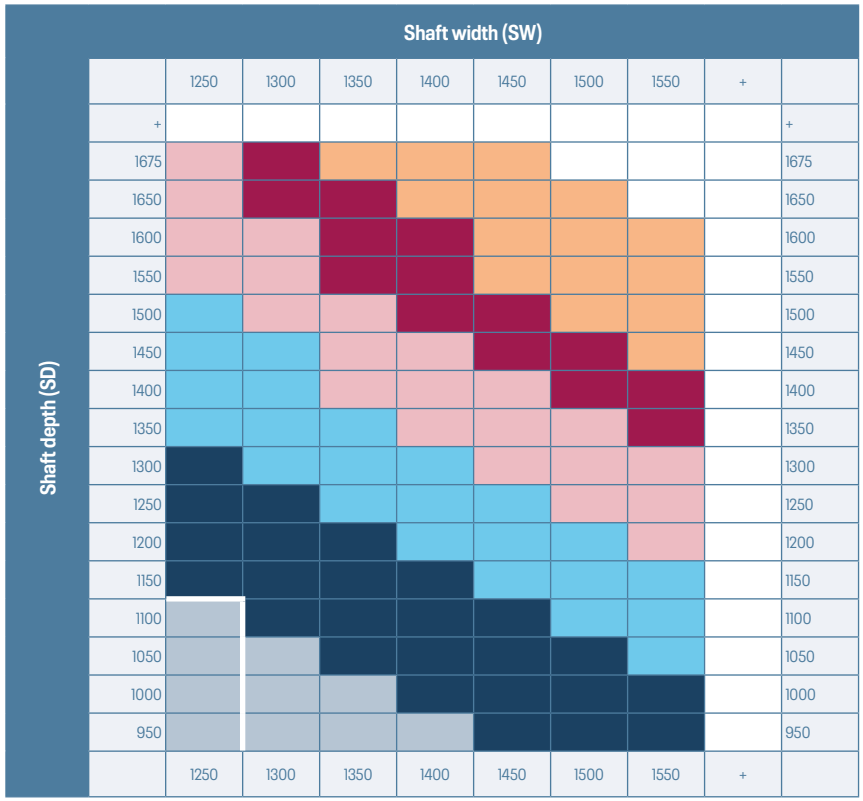


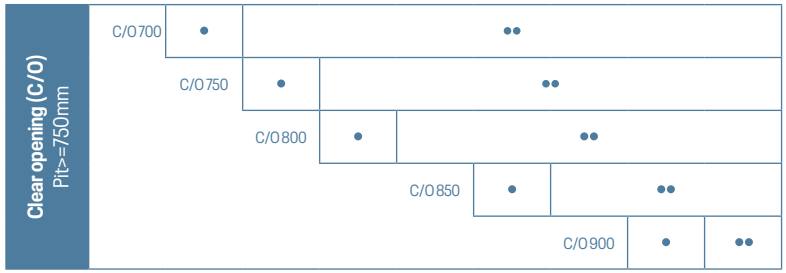
Car dimensions

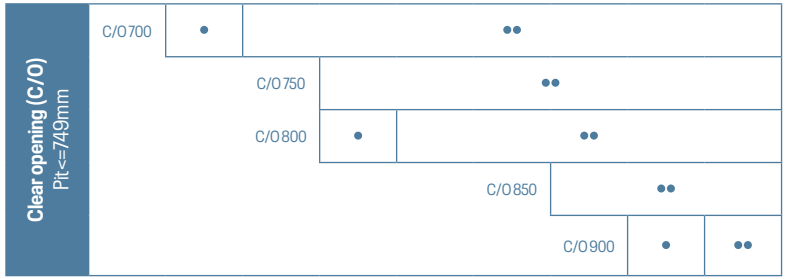
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 225 mm

- Maximum car width: 1200 mm
- Minimum car width C/O 700: 850 mm
- Minimum car width C/O 750: 925 mm
- Minimum car width C/O 800: 975 mm
- Minimum car width C/O 850: 1050 mm
- Minimum car width C/O 900: 1150 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 725 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

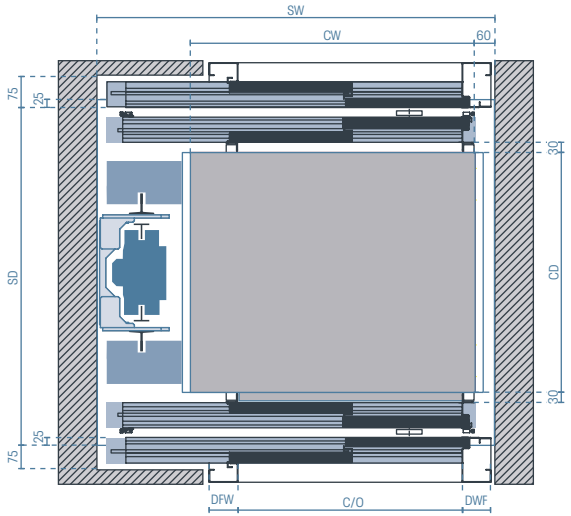
- • Door frame width (DFW): 90 mm
- •• Door frame width (DFW): 120 mm

Mechanical position
Side

Doors
2 panel side opening Augusta EVO

Door mounting position
Mounted on landings

Entrance
Through car 180°

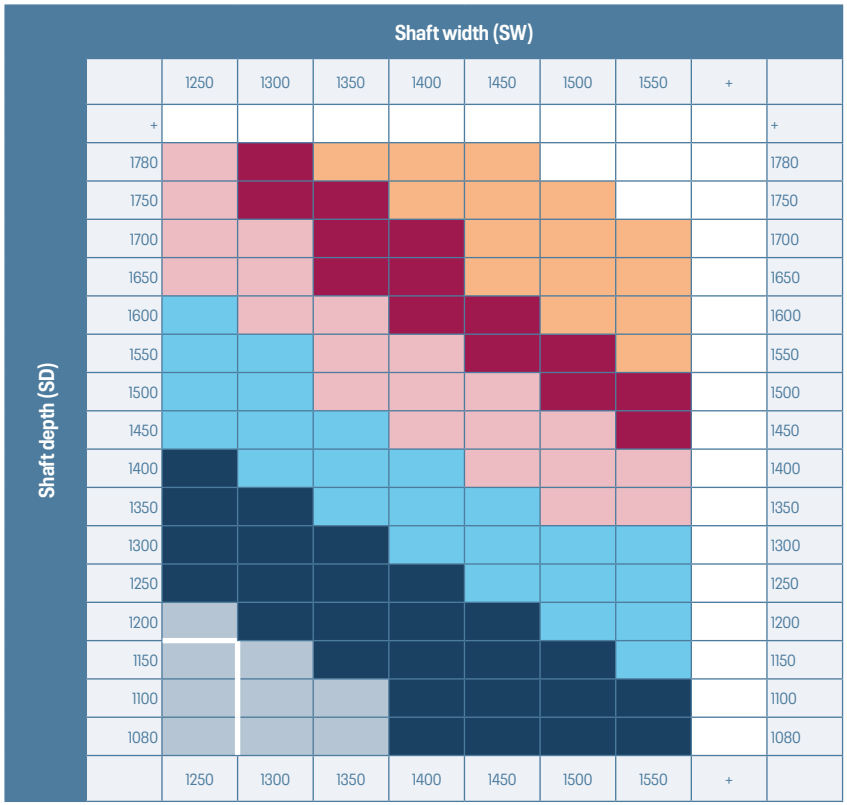


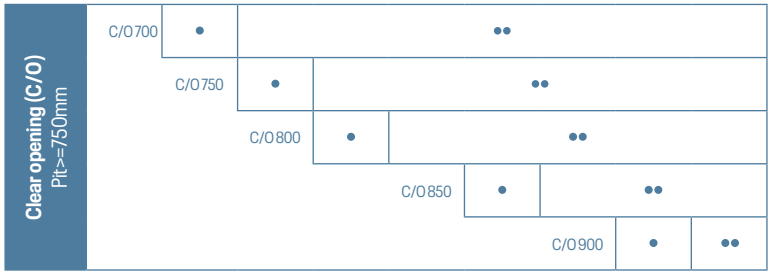
Car dimensions

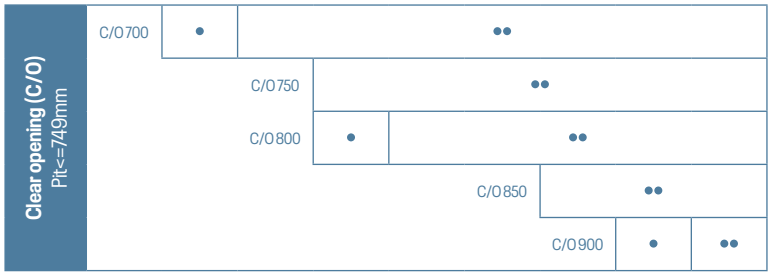
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 330 mm

- Maximum car width: 1200 mm
- Minimum car width C/O 700: 850 mm
- Minimum car width C/O 750: 925 mm
- Minimum car width C/O 800: 975 mm
- Minimum car width C/O 850: 1050 mm
- Minimum car width C/O 900: 1150 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 750 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

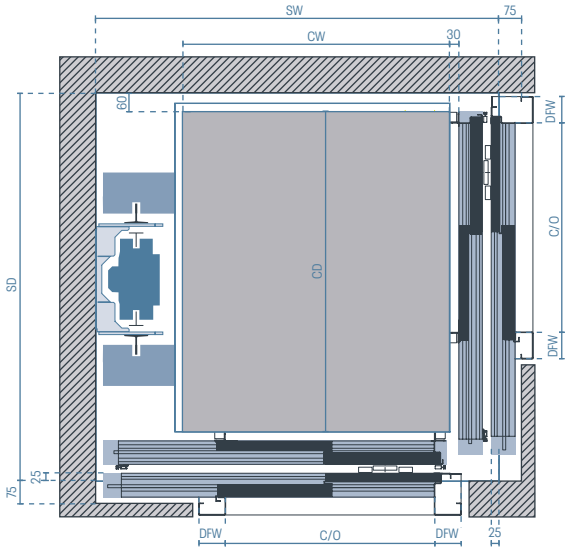
- • Door frame width (DFW): 90 mm
- •• Door frame width (DFW): 120 mm

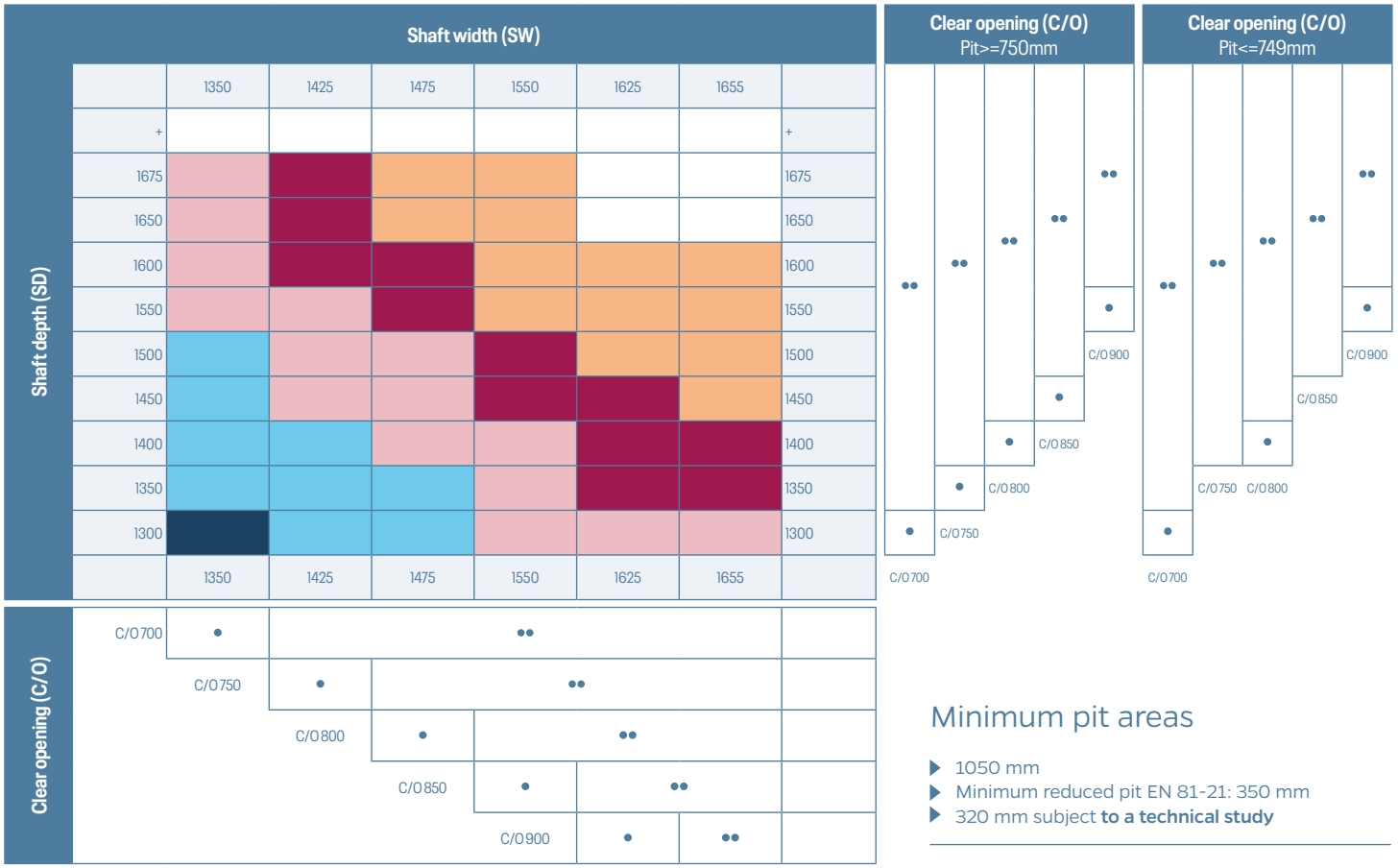
Mechanical position
Side

Doors
2 panel side opening Augusta EVO

Door mounting position
Mounted on landings

Entrance
Through car 90º or 270º





Car dimensions

CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 455 mm
Car depth = Shaft depth - 225 mm

- Maximum car width: 1200 mm
- Minimum car width C/O 700 (0º): 895 mm
- Minimum car width C/O 750 (0º): 970 mm
- Minimum car width C/O 800 (0º): 1020 mm
- Minimum car width C/O 850 (0º): 1095 mm
- Minimum car width C/O 900 (0º): 1170 mm

- Maximum car depth: 1450 mm
- Minimum car depth C/O 700 (90º): 1075 mm
- Minimum car depth C/O 750 (90º): 1125 mm
- Minimum car depth C/O 800 (90º): 1175 mm
- Minimum car depth C/O 850 (90º): 1225 mm
- Minimum car depth C/O 900 (90º): 1325 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps

Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

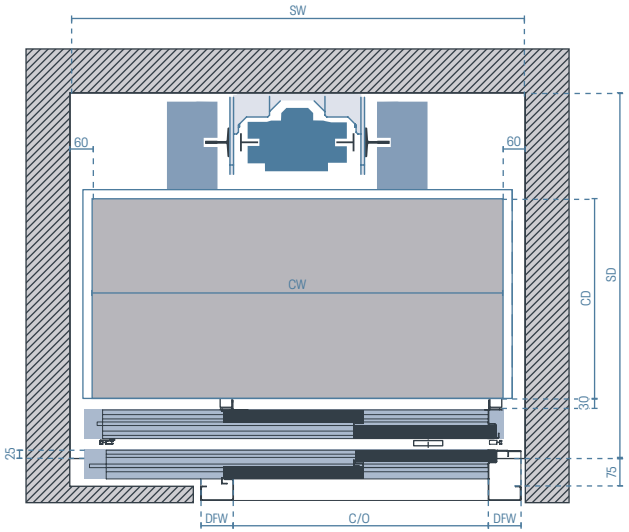
- • Door frame width (DFW): 90 mm
- •• Door frame width (DFW): 120 mm

Mechanical position
Rear mounted

Doors
2 panel side opening Augusta EVO

Door mounting position
Mounted on landings

Entrance
Single 0°

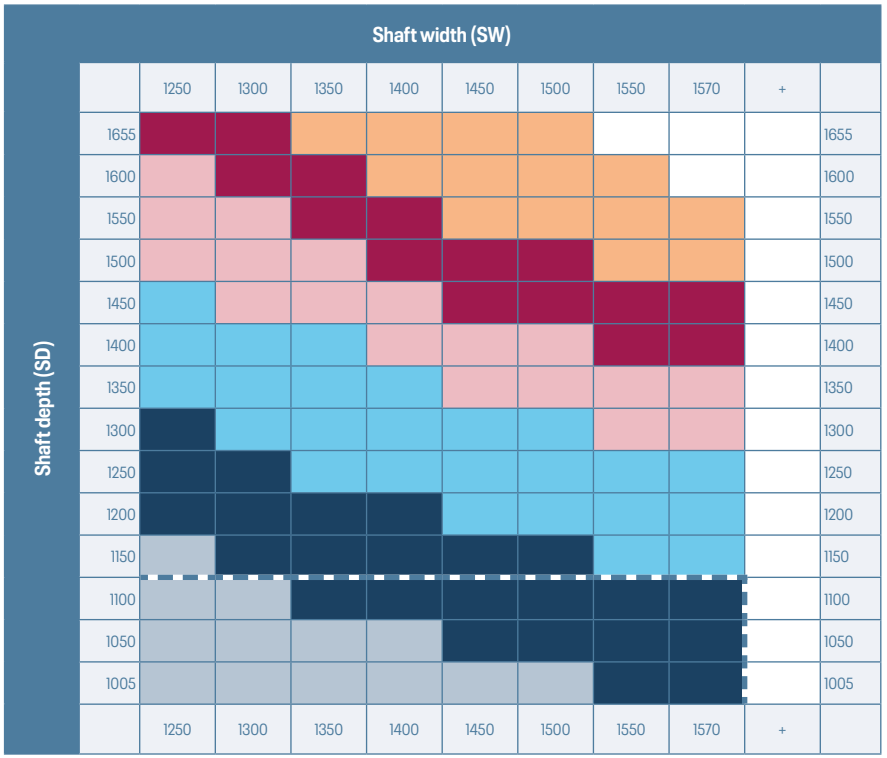


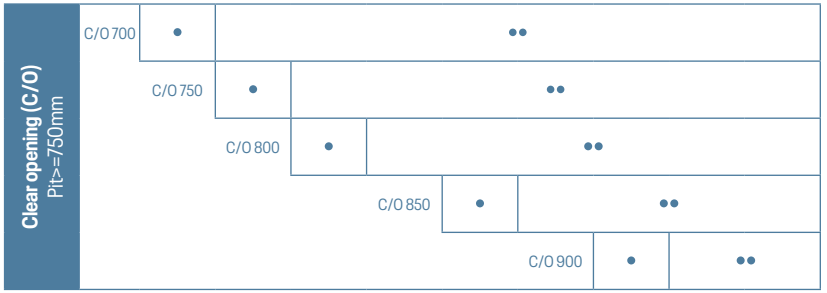
Car dimensions

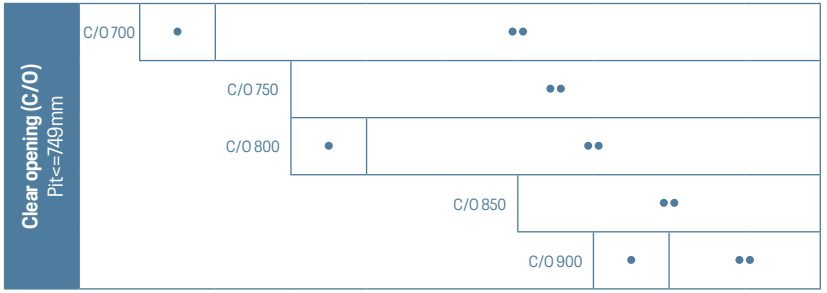
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 120 mm
Car depth = Shaft depth - 455 mm

- Maximum car width: 1450 mm
- Minimum car width C/O 700: 1130 mm
- Minimum car width C/O 750: 1180 mm
- Minimum car width C/O 800: 1230 mm
- Minimum car width C/O 850: 1330 mm
- Minimum car width C/O 900: 1430 mm
- Maximum car depth: 1200 mm
- Minimum car depth: 550 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

▬ ▬	4600 mm
All others	3600 mm

Load

225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

- • Door frame width (DFW): 90 mm
- •• Door frame width (DFW): 120 mm

Mechanical position

Side

Doors

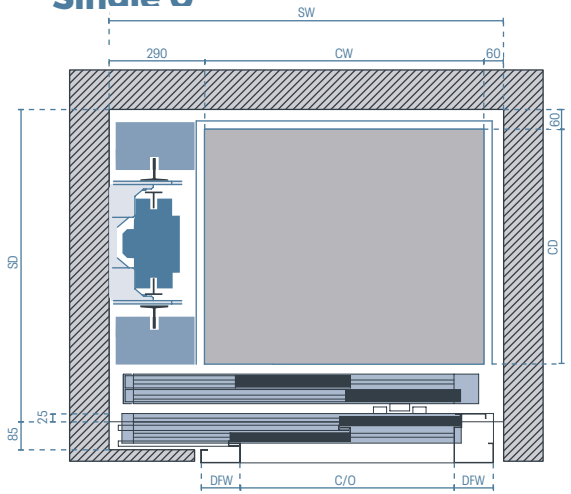
2 panel side opening Fermator Compact or Wittur Hydra

Door mounting position

Mounted on landings

Entrance

Single 0º

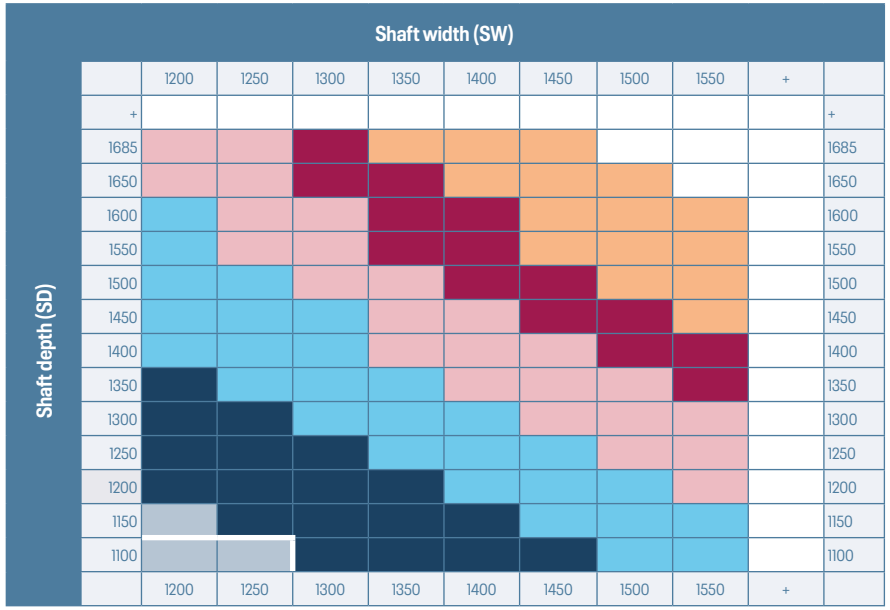


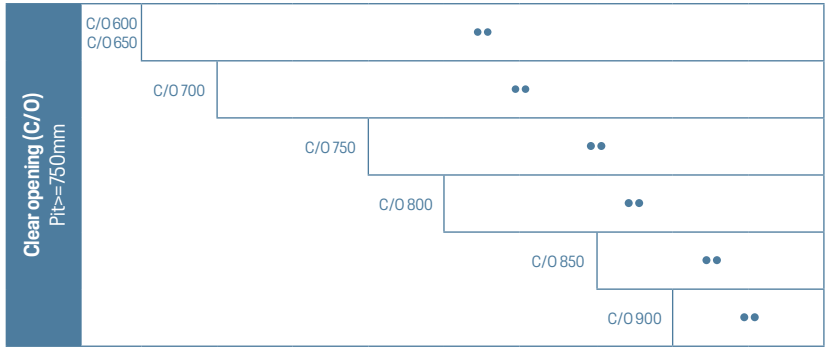
Car dimensions

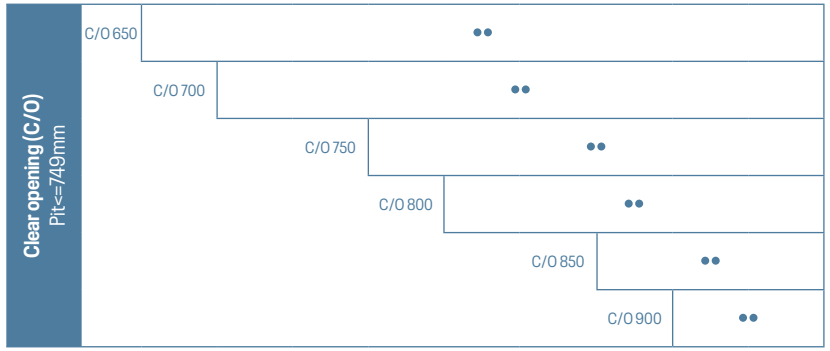
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 235 mm

- Maximum car width: 1200 mm
- Minimum car width C/O 600: 715 mm
- Minimum car width C/O 650: 765 mm
- Minimum car width C/O 700: 815 mm
- Minimum car width C/O 750: 935 mm
- Minimum car width C/O 800: 985 mm
- Minimum car width C/O 850: 1085 mm
- Minimum car width C/O 900: 1145 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 715 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O) = 650mm

Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

•• Door frame width (DFW): 120 mm

Mechanical position

Side

Doors

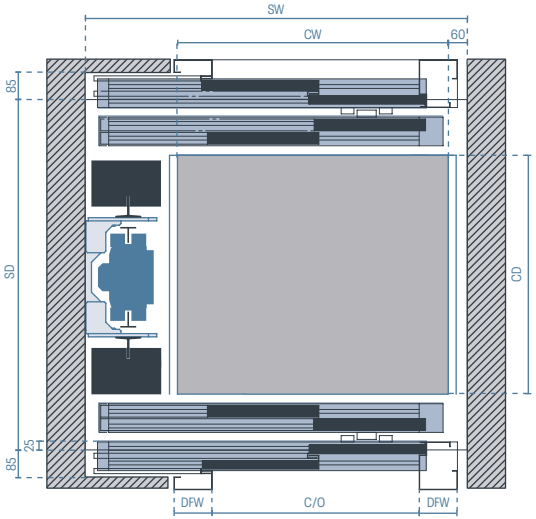
2 panel side opening Fermator Compact or Wittur Hydra

Door mounting position

Mounted on landings

Entrance

Through car 180º

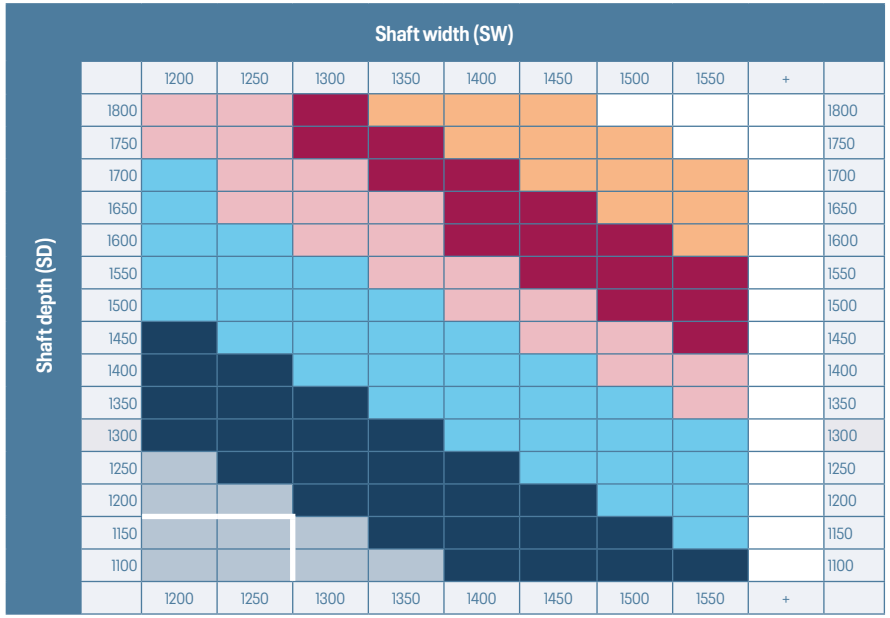


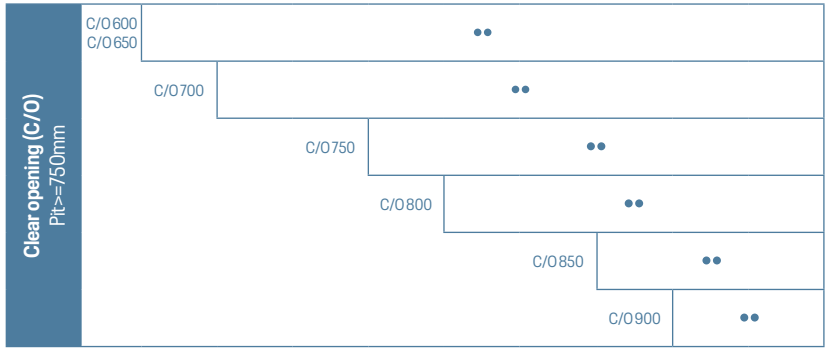
Car dimensions

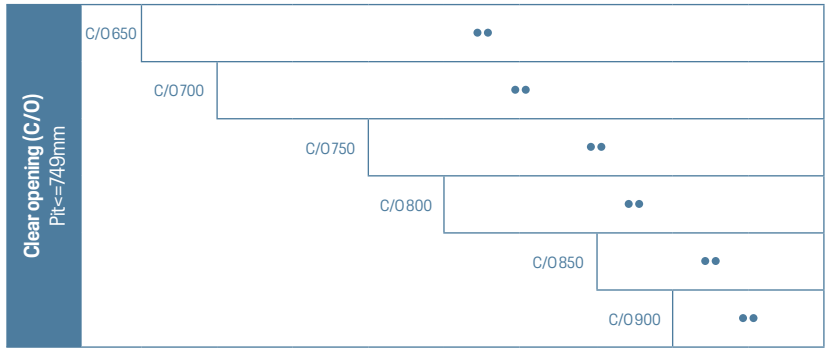
CALCULATION OF CAR DIMENSIONS
Car width = Shift width - 350 mm
Car depth = Shaft depth - 350 mm

- Maximum car width: 1200 mm
- Minimum car width C/O 600: 715 mm
- Minimum car width C/O 650: 765 mm
- Minimum car width C/O 700: 815 mm
- Minimum car width C/O 750: 935 mm
- Minimum car width C/O 800: 985 mm
- Minimum car width C/O 850: 1085 mm
- Minimum car width C/O 900: 1145 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 750 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O) = 650mm

Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

•• Door frame width (DFW): 120 mm

Mechanical position

Side

Doors

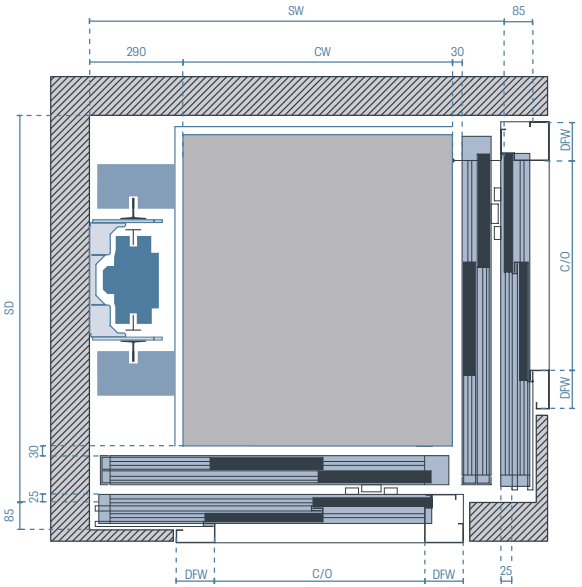
2 panel side opening Fermator Compact or Wittur Hydra

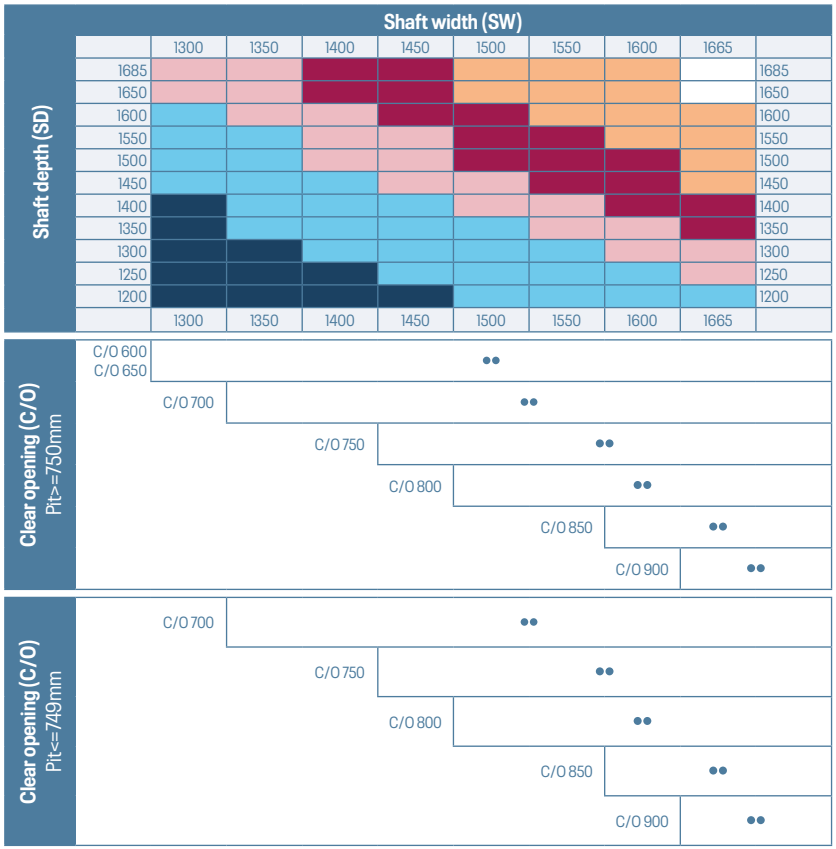
Door mounting position

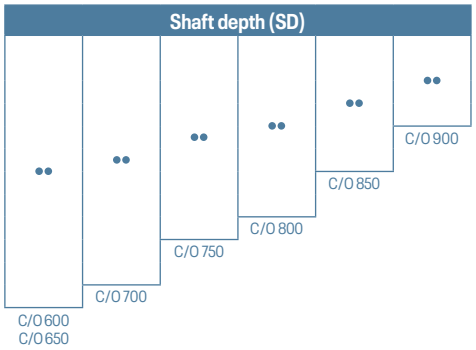
Mounted on landings

Entrance

Through car 90°







Car dimensions

CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 465 mm
Car depth = Shaft depth - 235 mm

- Maximum car width: 1200 mm
- Minimum car width C/O 600 (0°): 700 mm
- Minimum car width C/O 650 (0°): 765 mm
- Minimum car width C/O 700 (0°): 825 mm
- Minimum car width C/O 750 (0°): 925 mm
- Minimum car width C/O 800 (0°): 975 mm
- Minimum car width C/O 850 (0°): 1075 mm
- Minimum car width C/O 900 (0°): 1140 mm
- Minimum car depth C/O 600 (90°): 850 mm
- Minimum car depth C/O 650 (90°): 900 mm
- Minimum car depth C/O 700 (90°): 960 mm
- Minimum car depth C/O 750 (90°): 1060 mm
- Minimum car depth C/O 800 (90°): 1110 mm
- Minimum car depth C/O 850 (90°): 1195 mm
- Minimum car depth C/O 900 (90°): 1295 mm
- Maximum car depth: 1450 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps

Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

•• Door frame width (DFW): 120 mm

Mechanical position

Rear mounted

Doors

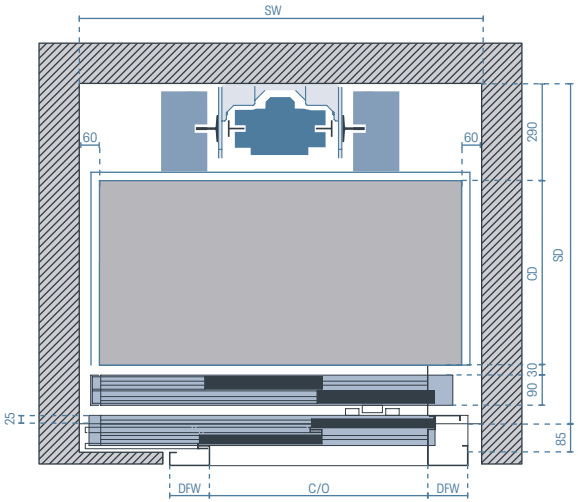
2 panel side opening Fermator Compact or Wittur Hydra

Door mounting position

Mounted on landings

Entrance

Single 0º

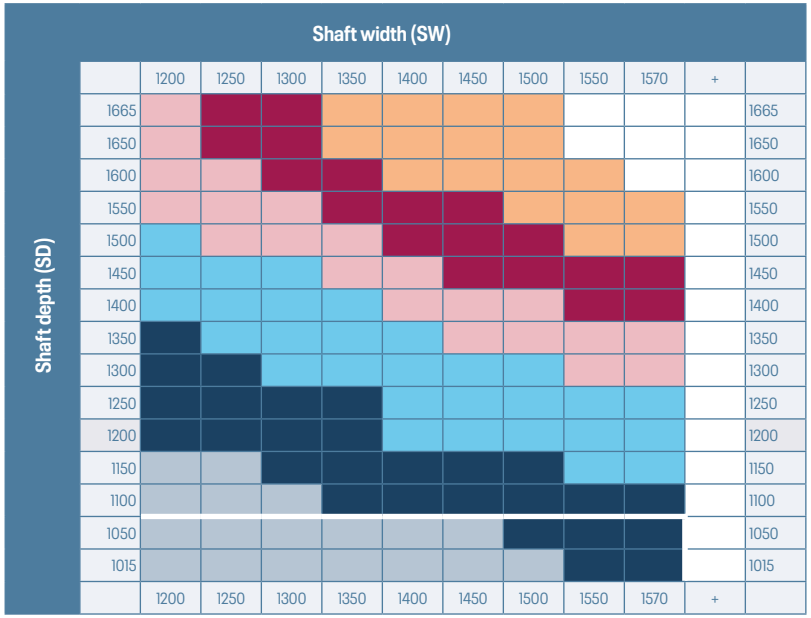


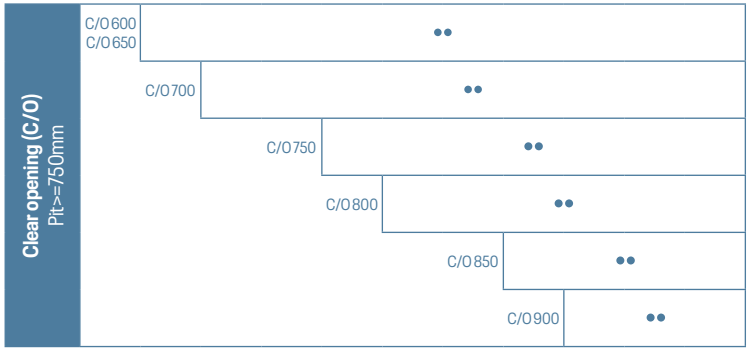
Car dimensions

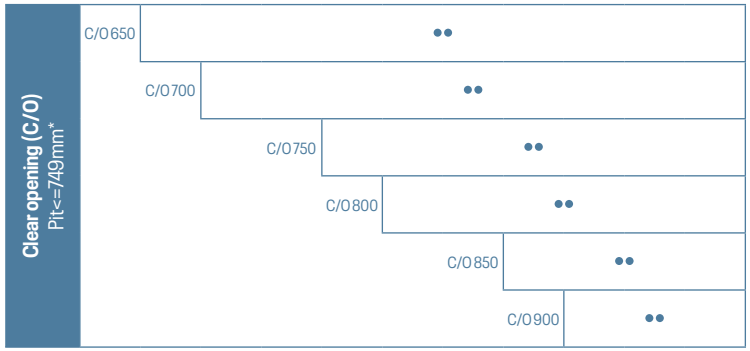
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 120 mm
Car depth = Shaft depth - 465 mm

- Maximum car width: 1450 mm
- Minimum car width C/O 600: 630 mm
- Minimum car width C/O 650: 680 mm
- Minimum car width C/O 700: 730 mm
- Minimum car width C/O 750: 780 mm
- Minimum car width C/O 800: 830 mm
- Minimum car width C/O 850: 880 mm
- Minimum car width C/O 900: 930 mm
- Maximum car depth: 1200 mm
- Minimum car depth : 550 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O) = 650mm

Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

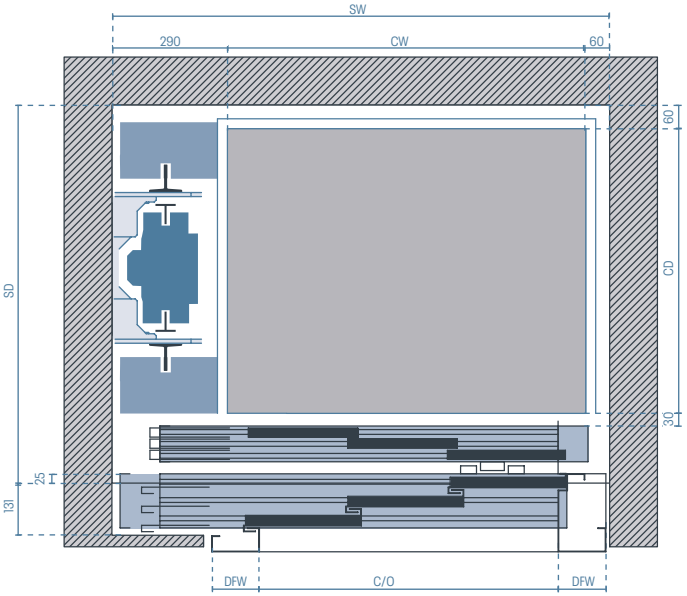
•• Door frame width (DFW): 120 mm

Mechanical position
Side

Doors
3 panel side opening Hydra

Door mounting position
Mounted on landings

Entrance
Single 0°

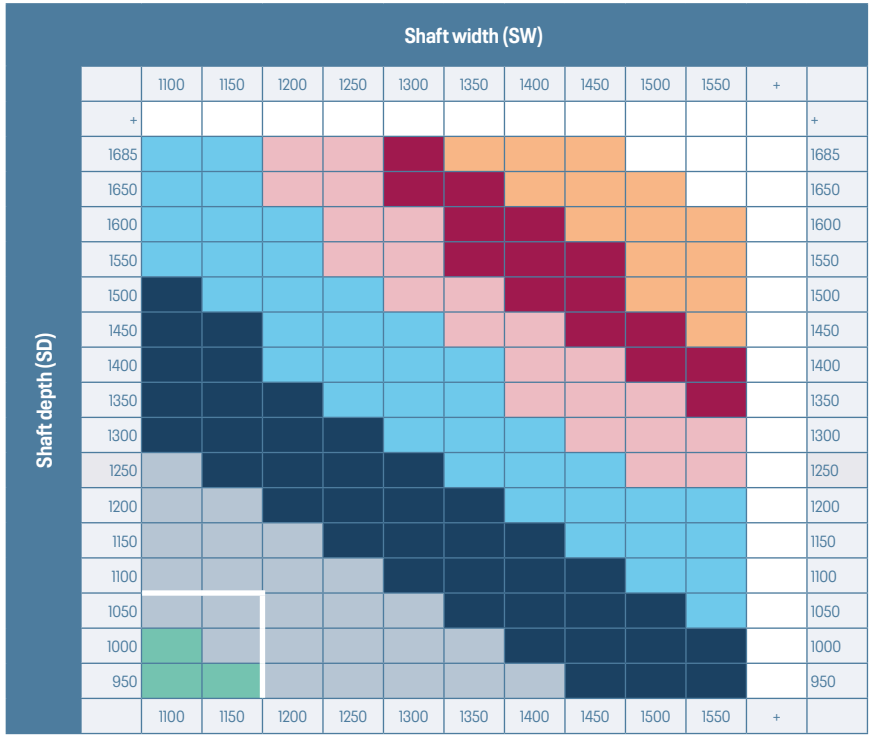


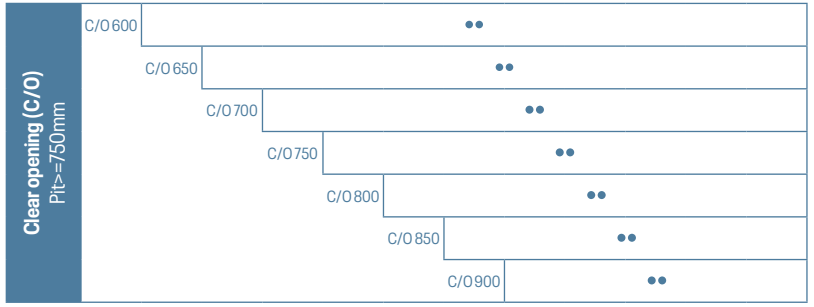
Car dimensions

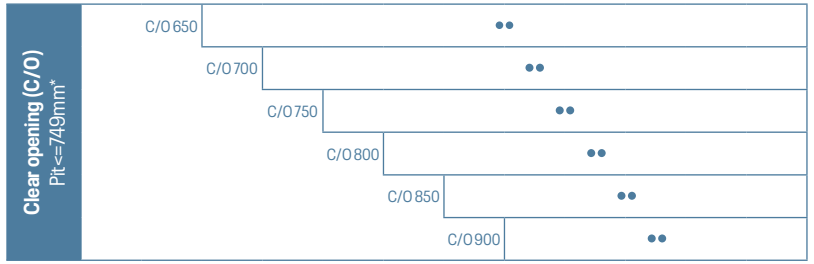
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 235 mm

- Maximum car width: 1200 mm
- Minimum car width: Clear opening + 50 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 715 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







* Minimum clear opening (C/O) = 650mm

Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

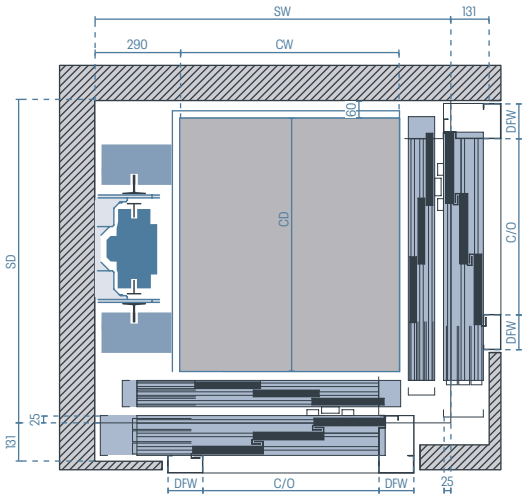
•• Door frame width (DFW): 120 mm

Mechanical position
Side

Doors
3 panel side opening Hydra

Door mounting position
Mounted on landing

Entrance
Through car 90°

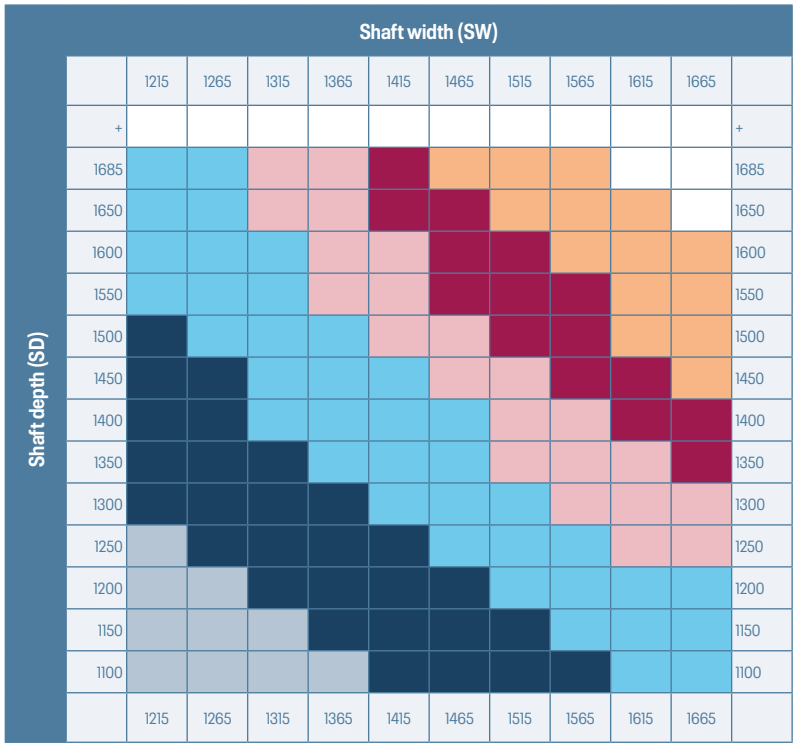


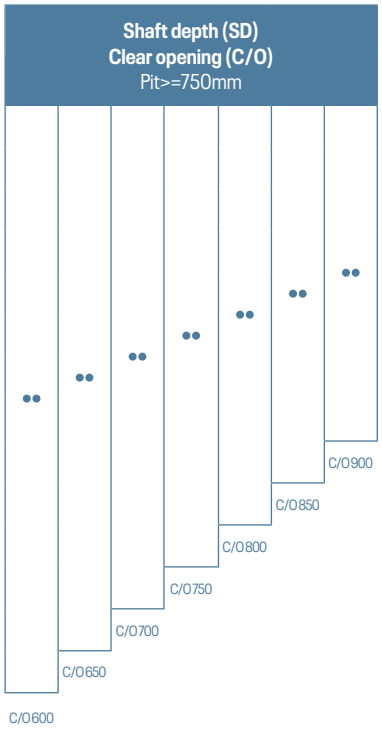
Car dimensions

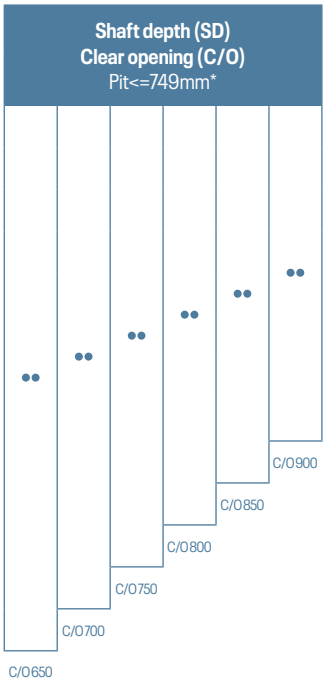
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 465 mm
Car depth = Shaft depth - 235 mm

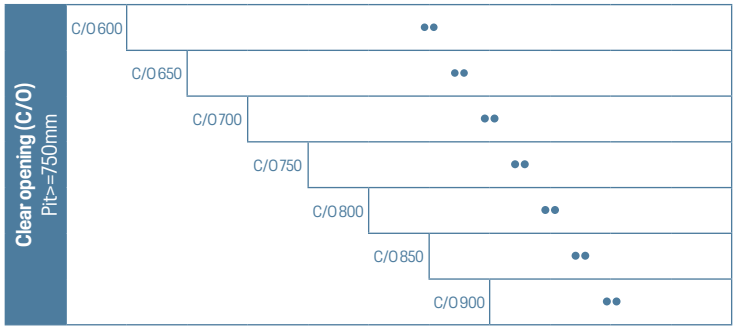
- Maximum car width: 1200 mm
- Minimum car width: Clear opening 0° + 150 mm
- Maximum car depth: 1450 mm
- Minimum car depth: Clear opening 90° + 230 mm

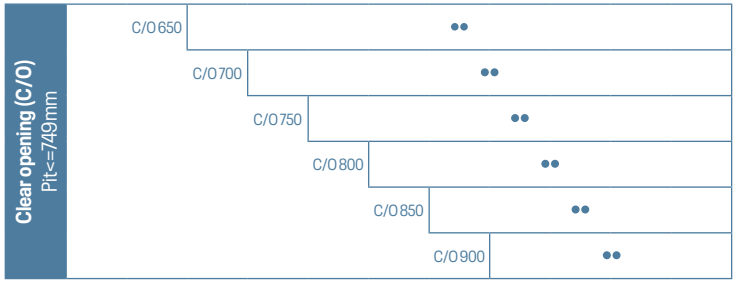
Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps











Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

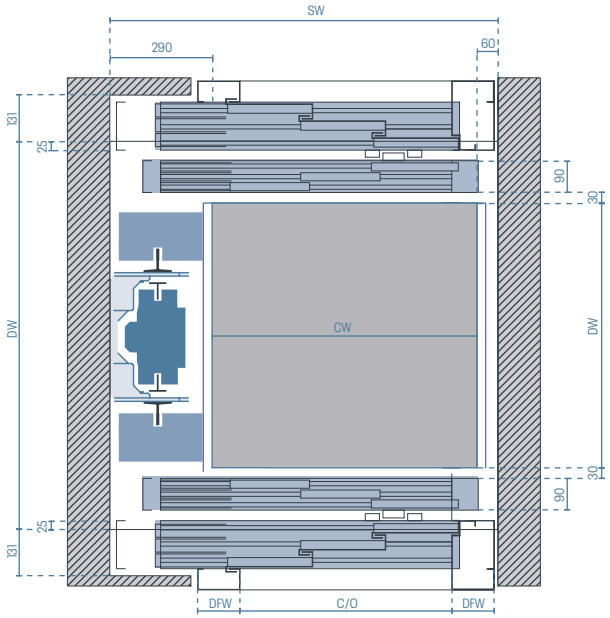
•• Door frame width (DFW): 120 mm

Mechanical position
Side

Doors
3 panel side opening Hydra

Door mounting position
Mounted on landing

Entrance
Through car 180°

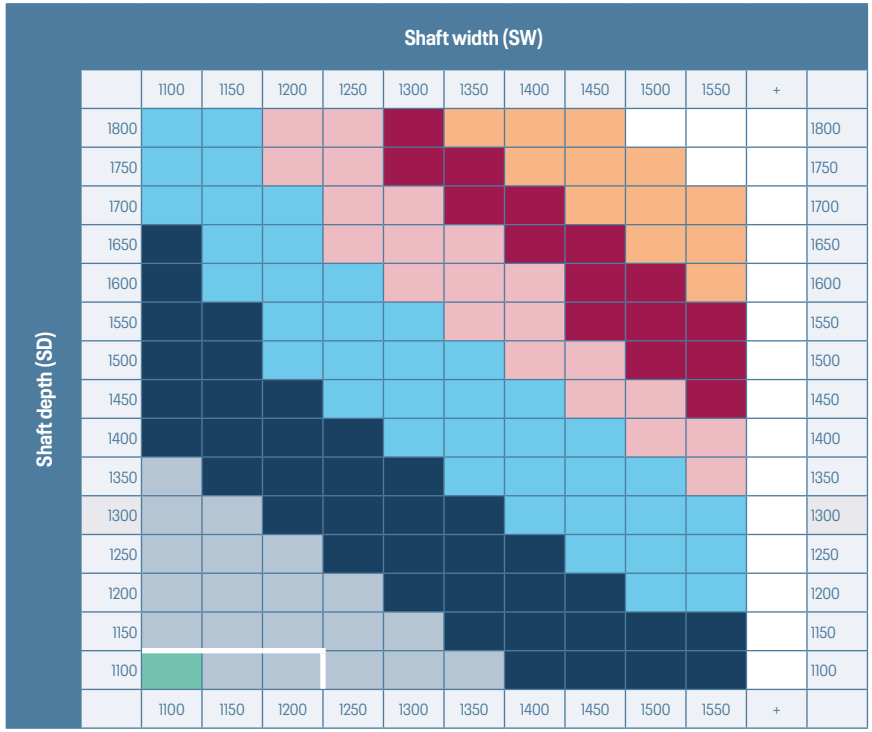


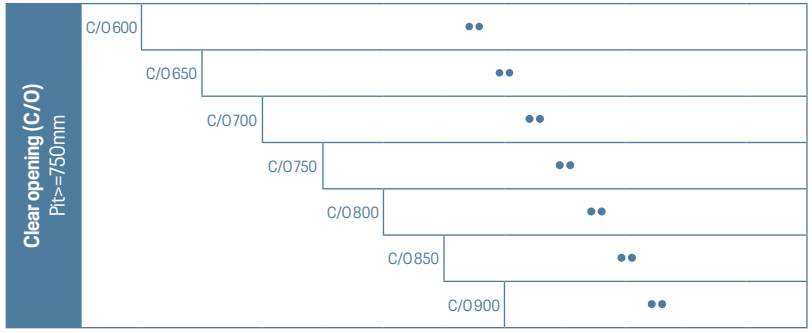
Car dimensions

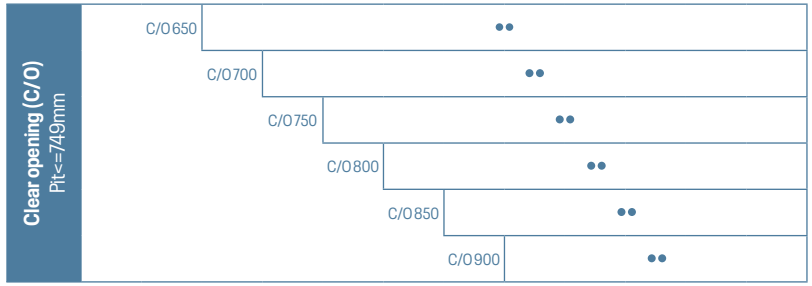
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 350 mm

- Maximum car width: 1200 mm
- Minimum car width: Clear opening + 50 mm
- Maximum car depth : 1450 mm
- Minimum car depth: 750 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

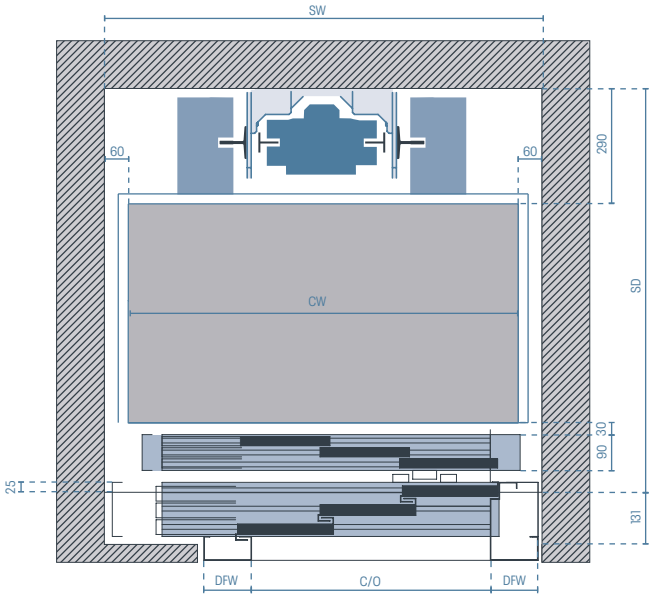
•• Door frame width (DFW): 120 mm

Mechanical position
Rear mounted

Doors
3 panel side opening Hydra

Door mounting position
Mounted on landing

Entrance
Single 0°

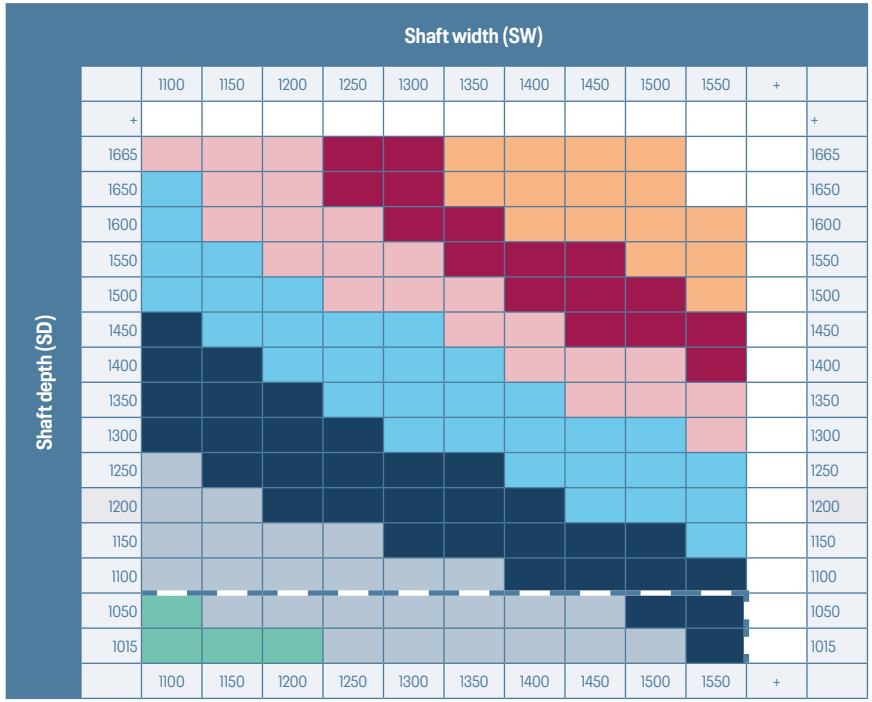


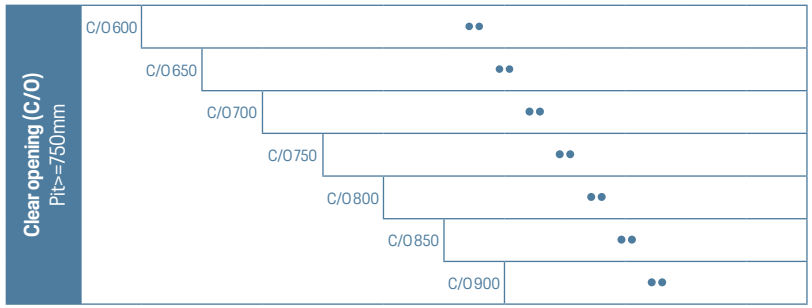
Car dimensions

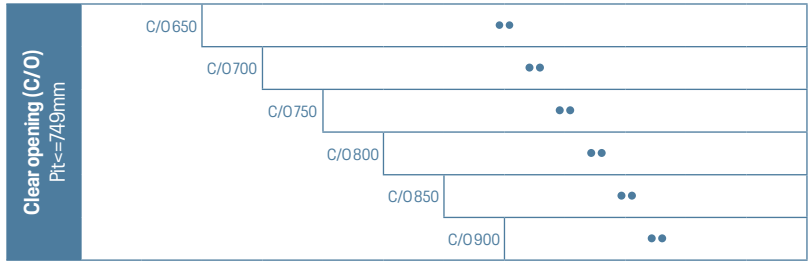
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 120 mm
Car depth = Shaft depth - 465 mm

- Maximum car width: 1450 mm
- Minimum car width: Clear opening + 30 mm
- Maximum car depth: 1200 mm
- Minimum car depth: 550 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

– –	4600 mm
All others	3600 mm

Load

180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

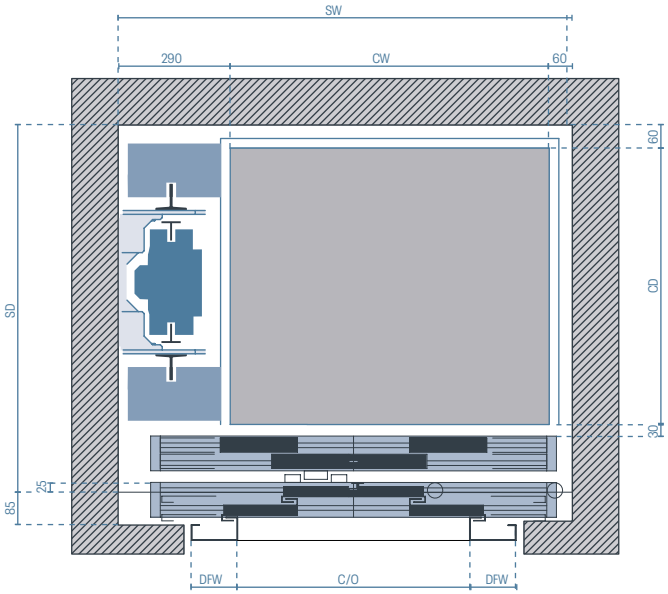
•• Door frame width (DFW): 120 mm

Mechanical position
Side

Doors
4 panel central opening Hydra

Door mounting position
Mounted on landings

Entrance
Single 0°

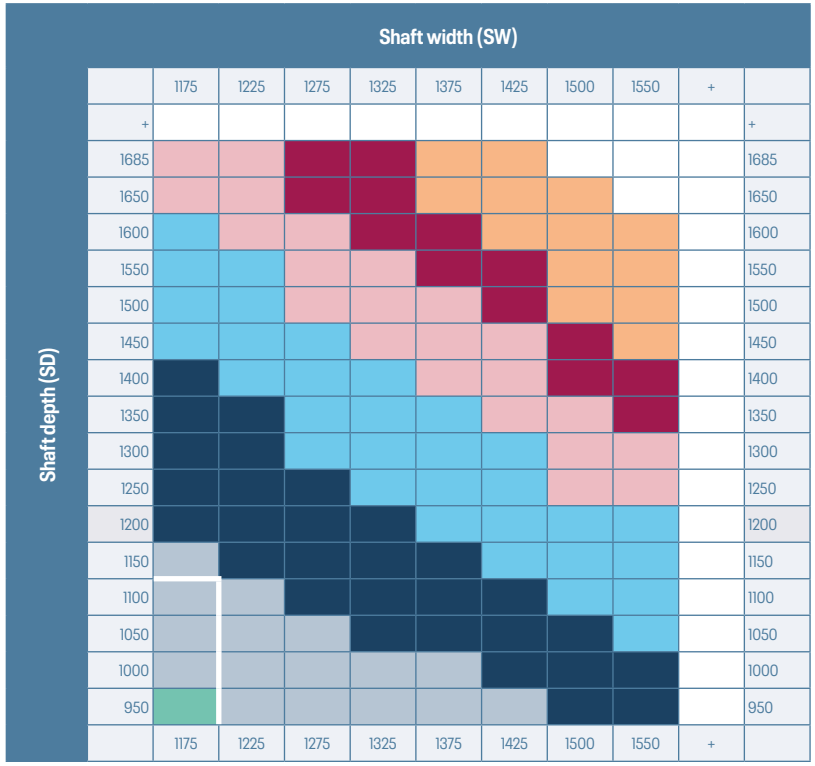


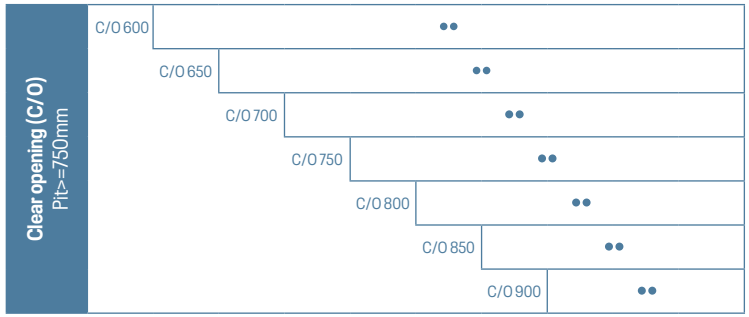
Car dimensions

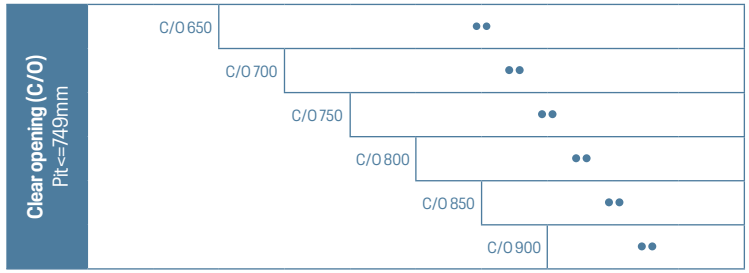
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 235 mm

- Maximum car width: 1200 mm
- Minimum car width: Clear opening + 50 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 715 mm

Maximum car area 1,65 m²
Width and depth of car dimensions in 5mm steps







Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

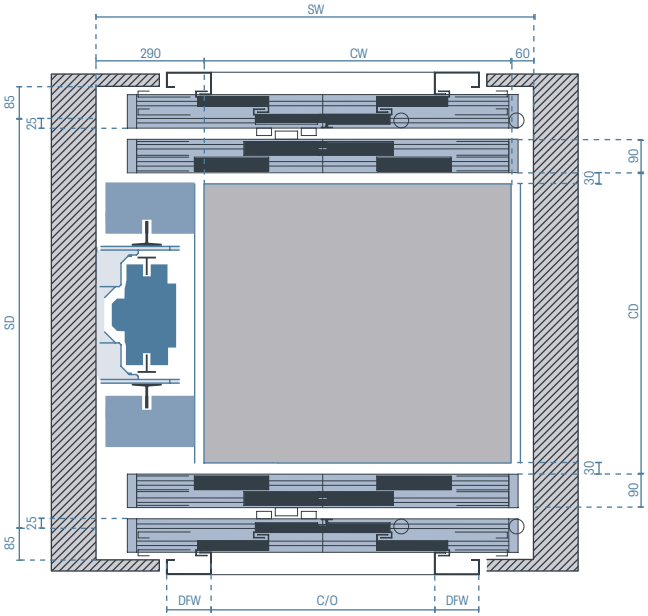
•• Door frame width (DFW): 120 mm

Mechanical position
Side

Doors
4 panel central opening Hydra

Door mounting position
Mounted on landings

Embarque
Through car 180°



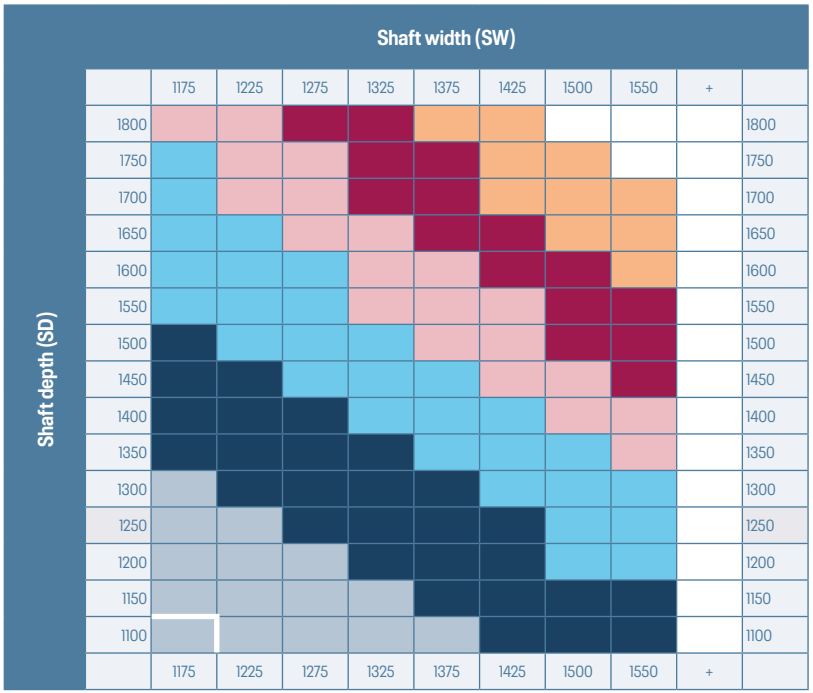
Car dimensions

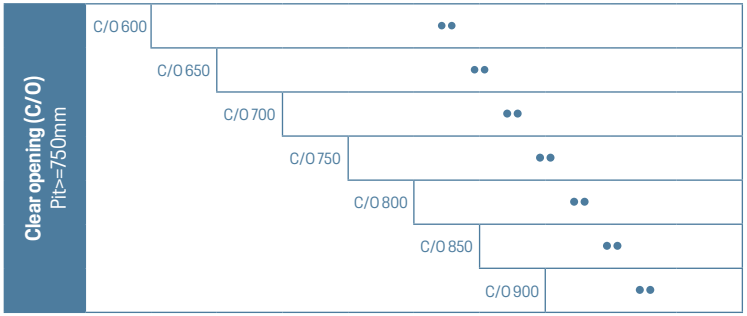
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 350 mm
Car depth = Shaft depth - 350 mm

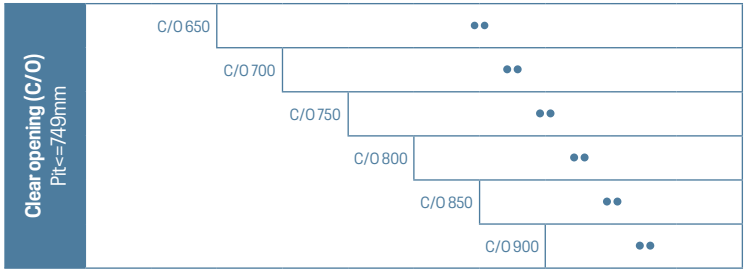
- Maximum car width: 1200 mm
- Minimum car width: Clear opening + 50 mm
- Maximum car depth: 1450 mm
- Minimum car depth: 750 mm

Maximum car area 1,65 m²

Width and depth of car dimensions in 5mm steps







Minimum pit areas

—	1350 mm
All others	1050 mm

- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

225Kg | 320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

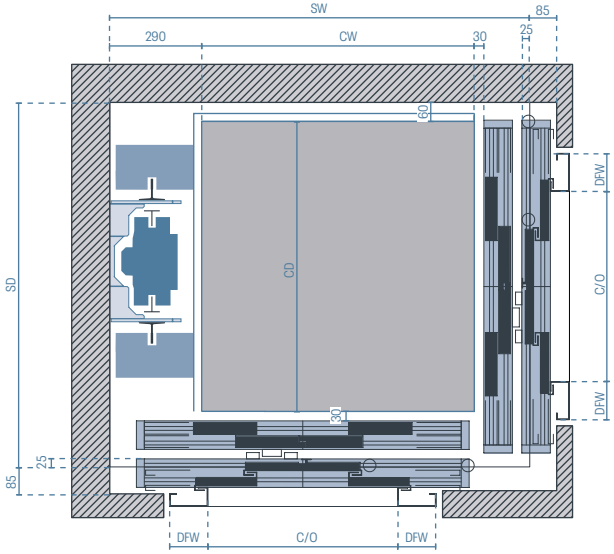
•• Door frame width (DFW): 120 mm

Mechanical position
Side

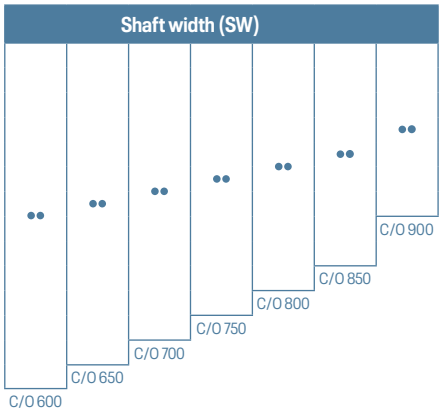
Doors
4 panel central opening Hydra

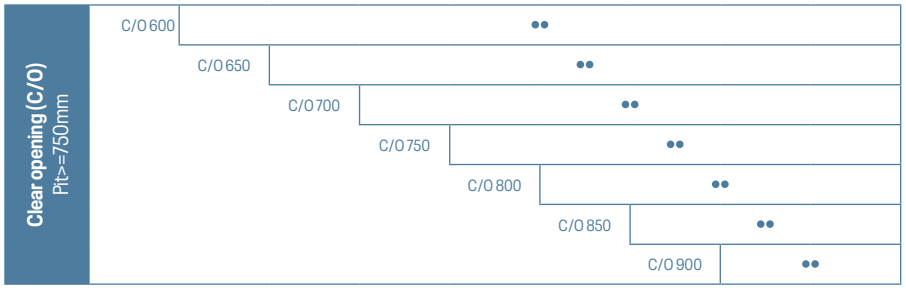
Door mounting position
Mounted on landings

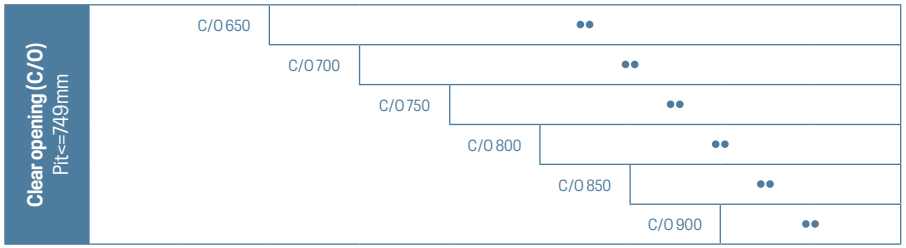
Embarque
Through car 90º



Shaft depth (SD)	Shaft width (SW)							
	1325	1375	1425	1475	1525	1575	1665	
+								+
1685								1685
1650								1650
1600								1600
1550								1550
1500								1500
1450								1450
1400								1400
1350								1350
1300								1300
1250								1250
1200								1200
1150								1150
	1325	1375	1425	1475	1525	1575	1665	







Car dimensions

CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 465 mm
FCar depth = Shaft depth - 235 mm

- Maximum car width: 1200 mm
- Minimum car width: Clear opening 0º+260 mm
- Maximum car depth: 1450 mm
- Minimum car depth: Clear opening 90º+250 mm

Maximum car area 1,65 m²

Width and depth of car dimensions in 5mm steps

Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

- 3600 mm

Load

320Kg | 375Kg | 450Kg | 525Kg | 630Kg

Door frame width

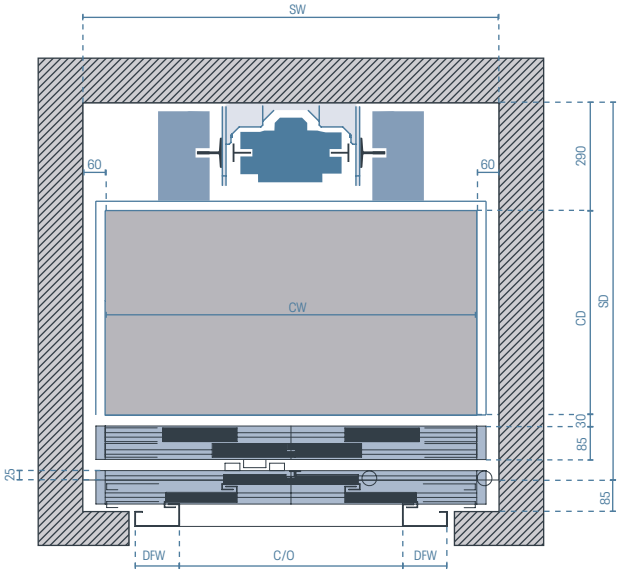
•• Door frame width (DFW): 120 mm

Mechanical position
Rear mounted

Doors
4 panel central opening Hydra

Door mounting position
Mounted on landings

Entrance
Single 0°



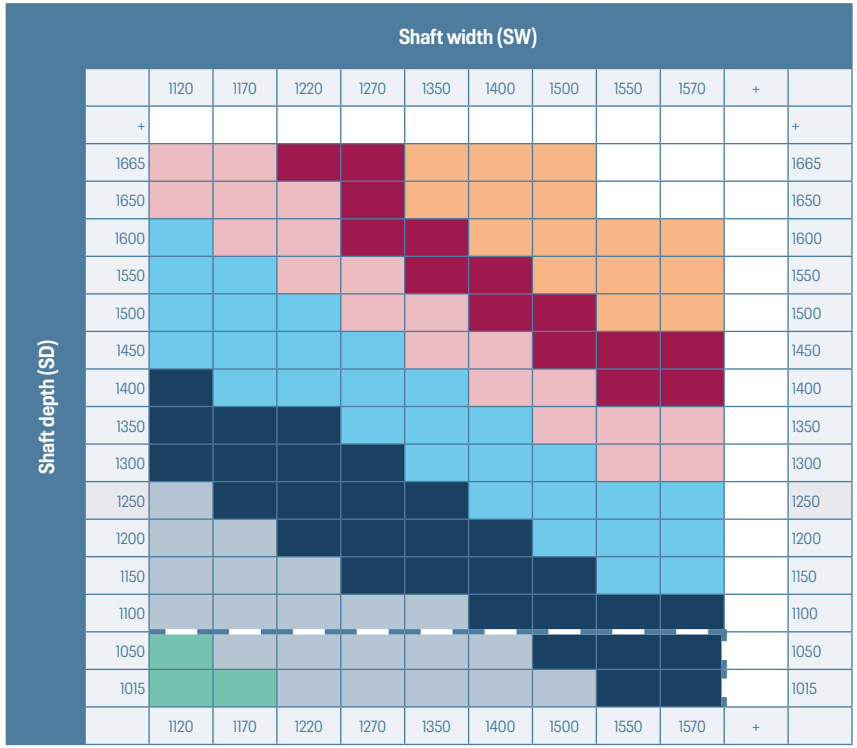
Car dimensions

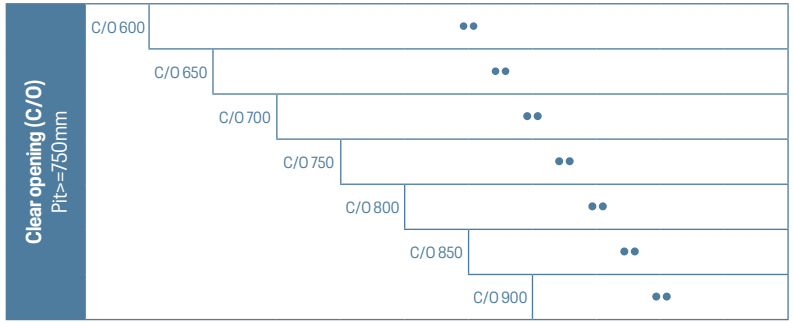
CALCULATION OF CAR DIMENSIONS
Car width = Shaft width - 120 mm
Car depth = Shaft depth - 465 mm

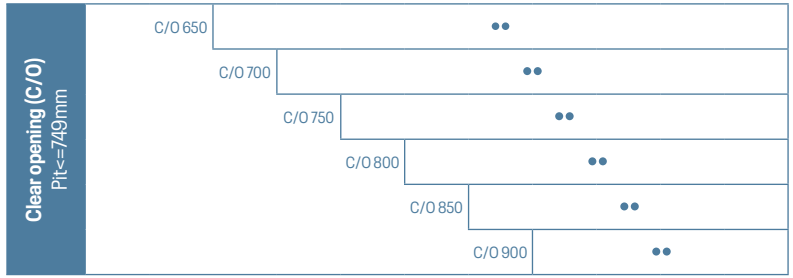
- Maximum car width: 1450 mm
- Minimum car width: Clear opening + 30 mm
- Maximum car depth: 1200 mm
- Minimum car depth: 550 mm

Maximum car area 1,65 m²

Width and depth of car dimensions in 5mm steps







Minimum pit areas

- 1050 mm
- Minimum reduced pit EN 81-21: 350 mm
- 320 mm subject **to a technical study**

Minimum headroom requirements (car height 2175 mm)

▬ ▬	4600 mm
All others	3600 mm

Load

180Kg 225Kg 320Kg 375Kg 450Kg 525Kg 630Kg

Door frame width

•• Door frame width (DFW): 120 mm

IMEM LIFTS

SilensPRO® REVOLUTION NANO

SilensPRO® REVOLUTION MICRO

EXPORT DEPARTMENT

C/ Adarzo 167-B.· 39011 Peñacastillo · Santander, Spain

Tel: (00 34) 942 34 60 20 **Fax:** (00 34) 942 35 53 64 **E-mail:** comex@imem.com

AENOR GESTIÓN DE LA CALIDAD ISO 9001 ER-0426/1997

AENOR GESTIÓN AMBIENTAL ISO 14001 GA-2008/0458

AENOR SEGURIDAD Y SALUD EN EL TRABAJO ISO 45001 SST-0008/2008

CE

Made in Europe

www.imem.com

April 2025