



#### LEAD THE DEVELOPMENT OF FUTURE TRANSPORT BY INNOVATIVE TECHNOLOGY



**PASSENGER ELEVATOR** 20 SERIES

GRP / GRO / GRB

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# SICHER ELEVATOR, ALL FOR SAFE REACH



# SICHER ELEVATOR

Sicher Elevator Co., Ltd. is a comprehensive elevator manufacturing service provider engaging in the development, manufacturing, sales, installation, maintenance and modern renewal and transformation of elevators, and holds the national highest-level production license for producing special equipment (A1). After successfully listed on the growth enterprise market of Shenzhen Exchange Stock in September 2021 (Stock Name: Sicher; Stock Code: 301056), Sicher Elevator has become the first elevator company listed on the growth enterprise market in Zhejiang and one of the top 10 Chinese elevator manufacturers.

For nearly 20 years, Sicher Elevator has always taken "all for safe reach" as the core philosophy, concentrated on two superior fields of core technology and elevator safety and built the whole industrial chain service platform and intelligent industrial new eco-system of the elevator industry. Sicher Elevator has established a long-term strategic partnership respectively with China State Construction Engineering Corporation, China Railway Engineering Corporation, China Communications Construction, China Metallurgical Group Corporation, Shimao Group and many other famous real estate enterprises. Sicher Elevator has been one of the top 10 elevator suppliers of governments in China for eight consecutive years and become a supplier of central government organs in centralized procurement. Its products have been exported to over 80 countries and regions. SRH has become a well-received elevator brand in Russia, Australia, Turkey, Mexico, Brazil, New Zealand, UAE, India, Egypt, Iran, Bangladesh, South Africa and other countries and regions.

#### Science and Technology Leading Advance with Glory

- Top 10 Chinese elevator manufacturers for three consecutive years
- Products are exported to over 80 countries and regions
- Selected as one of the top 10 elevator suppliers in national government purchase for eight consecutive years
- The core technology won the Science and Technology Advancement Award of Zhejiang Province
- Presided over and participated in the drafting of over 40 national and industrial elevator standards
- Won the Engineering Award of Elevator World; included on the list of Shanghai China Records
- Developed worldwide and purchased a modern German elevator manufacturing factory
- A five-star enterprise undertaking social responsibility in China

003 Sicher Eleva

# SRH Aufzüge GmbH

A wholly owned subsidiary by sicher elevator co., Ltd.

SRH Aufzüge GmbH is a famous European elevator company specializing in R&D, manufacturing elevator, core components and control system. In 2012, under the guidance of Sicherglobalization strategy and the deep cooperation of many years, it was wholly acquired by Sicher elevator and became a full German subsidiary and a modern manufacturing plant. It provides SRHbrand elevator with the advanced management philosophy of German industry and the leading front-end innovation technology support in the world.

Main member units of VFA

EU Elevator Standard

The support of platform of R&D

German Elevator Component

Core Component Support of















108 meter-high elevator test tower

# Boutique

Different passenger flow solutions Same safe reach

Every building has its own mission

Different passenger flows require different solutions

But safety is always the top priority

Sicher Elevator serves thousands of buildings

Sticking to safe arrival and setting a model for urban residence

To match the most suitable vertical transportation scheme for

#### Product specifications

Model	Туре	Rated capacity	Rated speed
GRPS20	SMR passenger elevator	630~2000	1.0~4.0
GRPN20	MRL passenger elevator	630~1600	1.0~2.0
GROS	SMR observation elevator	630~1600	1.0~2.5
GRON	MRL observation elevator	630~1600	1.0~2.0
GRBS	SMR bed elevator	1600~2000	1.0~2.5
GRBN	MRL bed elevator	1600~2000	1.0~1.75

# Superior

Exquisite workmanship and Innovation are the persistence of Sigher





#### Innovative technology Sicher Height

First Prize of Zhejiang Science and Technology Progress Award Second Prize of Shanghai Science and Technology Progress Award

#### Strict quality control, safe and reliable

From production to installation and delivery, to repair and maintenance, Sicher has always implemented strict quality and safety standards, reflecting Sicher's persistent pursuit of quality throughout the product life cycle.



National CNAS Certification Center Laborator



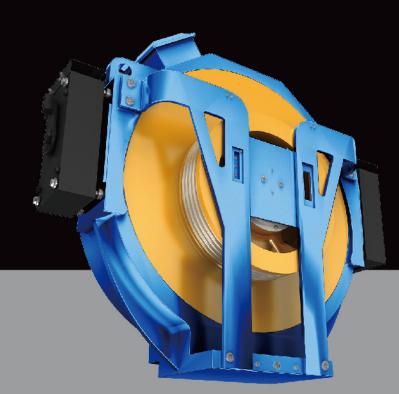
# Innovation

Classic and innovation Co-create values with excellence

Flexible customization for small-machine-room and machine-roomless architectural space

# Small machine room

The efficient layout of the machine room, with a clever and compact structure, can save nearly 50% of the machine room space while maintaining excellent performance in terms of operating performance, safety functions, operating experience and green consumption reduction.



#### Machine-roomless passenger elevator

Control cabinet and drive system in the original machine room are arranged inside the hoistway to maximize the utilization of building space, and greatly reduce energy consumption, contributing to the value of green buildings.

#### Driving upgrades Unleashing unlimited momentum

#### Innovative ultra-thin machine-roomless traction machine

The new electromagnetic plan realizes the axial ultra-thin design of the permanent magnet synchronous traction machine, the machine-roomless wall layout, and the installation of guide rails, making full use of the hoistway space and efficiently improving the utilization rate of the building;

Installation front design of encoder, convenient installation and maintenance;

Double support structure, stable and reliable operation. (Only for GRPN20-VII MRL passenger elevator)

#### A new generation of permanent magnet synchronous traction machine

It adopts high-performance permanent magnet materials and special motor, and it has the charac-teristics of energy saving, environmental protection, low speed and large torque;

When the peak torque is large, and the pulsation is small, the elevator operation is safer and more reliable;

traction machine with high-quality magnetic steel and equipped with motor overheating protection device, can withstand high temperature.

# Qualifition





























# GRP PASSENGER ELEVATOR



# **RJ011**

Stainless steel car (Standard)

Car wall: hairline stainless steel
Car door: hairline stainless steel

**Ceiling:** mirror stainless steel, LED crystal lamp (RHD003)

Floor: PVC (RHPV004)

**Handrail:** stainless steel round pipe (RHF002) (Optional)

COP: embedded control box (RC004)



Scan the QR code to know more about the lift car in the 360-degree manner



Hall call box (No bottom box) (Standard



RZ004-1-3



RZ004-1-4

Duplex



# GRO OBSERVATION ELEVATOR

GRO observation elevator follows the architectural aesthetic design so that the relationship between the elevator and the building is no longer a simple subsidiary relationship, but set off each other. The large-screen glass car wall and the unique appearance add to the architectural beauty of the building while also providing passengers with a mobile sightseeing platform.

#### Spacious space, broad view

The car space is spacious and transparent, effectively alleviating the discomfort at high altitude.

With a large sightseeing area design, the viewing field is wide.

# Precise sensitivity light curtain protection

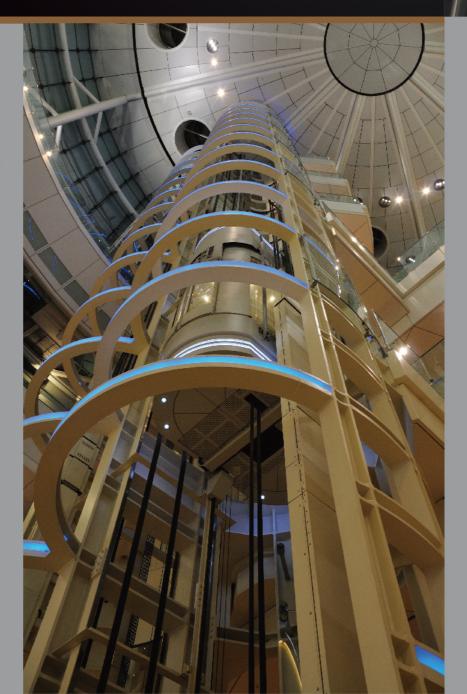
High-sensitivity light curtain protection technology, can accurately identify under strong light, to keep passengers safe at all times.

#### Customization of appearance design

The customized appearance design of the hoistway can match the corresponding color glass, hoistway frame and parts according to the architectural style, presenting a seamless beauty.

#### Safe and considerate design

The elevator car is equipped with standard height handrails, and the car wall is made of safety laminated glass, giving people a sense of security.



#### A variety of layout plans to appreciate different views

#### All-round hoistway

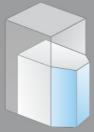






Panoramic type

#### Half hoistway



Corner-cutting type



Semicircle type



Square ty

Note: The blue part is sightseeing glass

013

#### Car decoration of observation elevator









# **RJ105**

(Standard)

#### Upper and lower covers:

Steel plate paint frame, acrylic lighting

#### Sightseeing wall:

Safety laminated glass

**Ceiling:** Steel plate paint frame, acrylic top plate, downlight embellishment

#### Car wall:

Hairline stainless steel

#### Handrail:

Stainless steel tube

#### Floor:

PVC

## **RJ103**

(Standard)

#### Upper and lower covers:

Steel plate paint plus decorative lights

#### Sightseeing wall:

Safety laminated glass

#### Ceiling:

Mirror st./st with acrylic plate

#### Car wall:

Laminated glass

#### Handrail:

Stainless steel tube

#### Floor:

PVC

# **RJ110**

(Optional)

#### Sightseeing wall:

Safety laminated glass

#### Ceiling:

Hairline frame, mirror stainless steel, acrylic strip

#### Car wall:

Hairline stainless steel

#### Handrail:

Stainless steel tube

#### Floor:

PVC

# **RJ111**

(Optional)

#### Upper and lower covers:

Hairline stainless steel,mirror surface moulding on the central axis

#### Sightseeing wall:

Safety laminated glass, curved onthe front and flat glass on both sides

#### Ceiling:

Hairline stainless steel frame,multi-layered transparent board and downlight mixed lighting

#### Car wall:

Hairline stainless steel

#### Handrail:

Stainless steel tube

#### Floor:

PVC Sicher Elevator

015

#### Car decoration of observation elevator









# **RJ100**

(Optional)

#### Upper and lower covers:

Baked enamel steel plus color decoration patterns

#### Sightseeing wall:

Laminated safety glass

Ceiling: Round acrylic lamp in the middle,

down lights on two sides

Car wall:

Hairline stainless steel

Handrail:

Stainless steel tube

Floor:

PVC

# **RJ102**

(Optional)

#### Upper and lower covers:

White acrylic decoration hood

#### Sightseeing wall:

Laminated safety glass (three pieces)

Ceiling: Baked enamel steel frame and

blue acrylic lighting strip

Car wall:

Hairline stainless steel

#### Handrail:

Stainless steel tube

Floor:

PVC

# **RJ108**

(Optional)

#### Upper and lower covers:

Baked enamel steel, acrylic lighting decoration

#### Sightseeing wall:

Laminated safety glass

**Ceiling:** Baked enamel steel frame, acrylic arch top plate with down lights

#### Car wall:

Hairline stainless steel

#### Handrail:

Stainless steel, single tube fixed on floor

#### Floor:

PVC

# **RJ109**

(Optional)

#### Upper and lower covers:

Baked enamel steel, acrylic and LED down lights

#### Sightseeing wall:

Laminated safety glass

#### Ceiling:

Hairline st./st. with acrylic plate

#### Car wall:

Hairline stainless steel

#### Handrail:

Stainless steel tube

#### Floor:

PVC

# GRB BED ELEVATOR

GRB bed elevator is a typical product that Sicher practices responsibility of brand safety. Based on the particularity of the elevator scene, it adopts professional customized health elevator solutions to prevent viruses, and create health and safety space for medical staff and patients.

#### High load capacity

Meet the requirements of elevator for high-frequency and strong carrying.

#### EMS electromagnetic compatibility

The control system complies with electromagnetic compatibility standards, effectively suppressing electromagnetic interference between various medical instrument and the elevator signal.

#### Large longitudinal and deep car

Meet the needs of transporting hospital beds in daily medical care.

#### Car air sterilization and purification

The purification rate of PM2.5 particles and the disinfection rate of bacteria are as high as 99.44%.

#### Intelligent voice announcement

Intimate reminder prevents overcrossing the stop.



# Handicapped control operation panel

Humanized design makes it easy for everyone to take elevator.

#### Broaden your horizons

Exquisite handrail fits to the car wall, and is easy to grasp,

Arc design at both ends avoids collision.



Car wall: Hairline stainless steel

Ceiling: Hairline stainless steel, LED square flat lights(RD019)

Handrail: RHF005

Floor: RHPV001

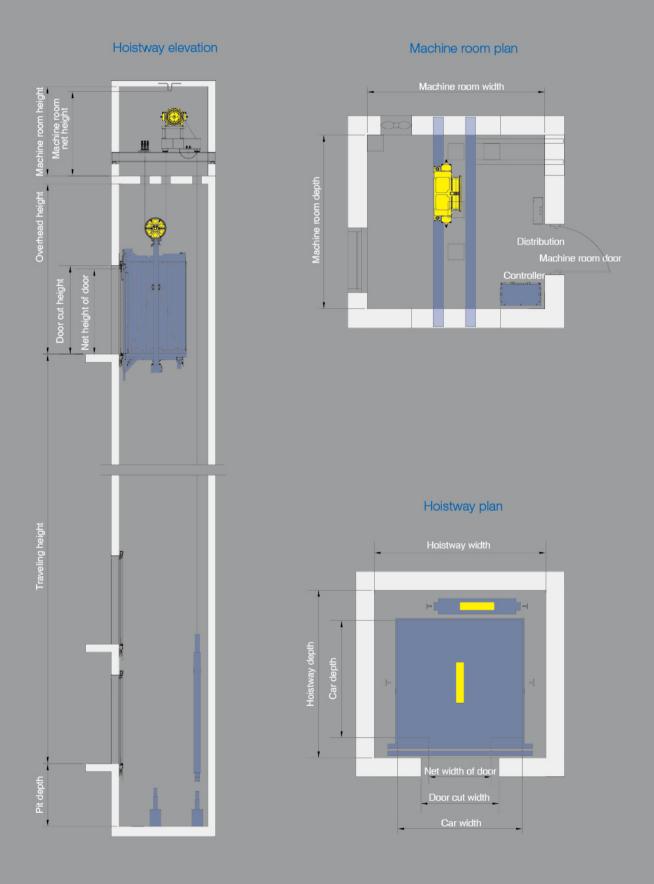
# **Function**

Standard	d Function	
	VVVF drive	Motor rotating speed can be precisely adjusted to get smooth speed curve in elevator's start, travel and stop and gain the sound comfort.
	VVVF door operator	Motor rotating speed can be precisely adjusted to get the more gentle and sensitive door machine start / stop.
	Independent running	The elevator can not respond to outer calling, but only respond to the command inside the car through the action switch.
ф	Automatic pass without stop	When the car is crowded with the passengers or the load is closed to preset value, the car will automatically pass the calling landing in order to keep maximum travel efficiency.
Travel	Car stops and door open	The elevator decelerates and levels, the door only opens after the elevator comes to a complete stop.
function	Command register cancel	If you press the wrong floor command button in the car, twice continuous pressing of the same button can cancel the registered command.
	Direct parking	It completely accords with distance principle with no crawling in the leveling. It greatly enhances the travel efficiency.
	Photocell protection	In the door open and close period, infrared light that covers the whole door height is used to probe the door protection device of both the passengers and objects.
	Designated stop	If the elevator can not open the door in the destination floor out of some reason, the elevator will close the door and travel to the next designated floor.
	Overload holding stop	When the car is overload, the buzzer rings and stops the elevator in the same floor.
	Anti-stall timer protection	The elevator stops operation due to slippery of the traction wire rope.
	Start protection control	If the elevator does not leave door zone within the designated time after it starts, it will stop the operation.
	Fault self-diagnosis	The controller can record 62 latest troubles so as to quickly remove the trouble and restore the elevator operation.
<b>①</b>	Up/down over-run and final limit protection	The device can effectively prevent from the elevator's surging to the top or knocking the bottom when it is out of control. It results in more safe and reliable elevator travel.
Safety function	Down over-speed protection device	When the elevator's down speed is 1.2 times higher than the rated speed, this device will automatically cut off control mains, stop the motor running so as to stop elevator down at over-speed. If the elevator continues to down at over-speed, and if the speed is 1.4 times higher than rated speed, safety tongs act to force the elevator stop in order to ensure the safety.
	Upward over-speed protection device	When the elevator's up speed is 1.2 times higher than rated speed, the device will automatically decelerate or brake the elevator.
	Braking Force Self- Detection Function	System will do the detection and failure warning for the braking force regularly so as to prevent the accident of braking failure and bring passengers safety protection at any time.
	Steel Rope Slipping Self-Detection	System will monitor the offset when the elevator is running. Elevator will run into the safety model and drive to the nearest leveling if the offset deviate from the reasonable value.
	Balance System Self-Learning	System can automatically recognize and calculate elevator coefficient of balance deviation and provides weight adjustment calculation to give the reasonable adjustment opinion.
	Unintended Car Movement Protection	Protection to prevent or stop accidental movement of the car when the car at the door unlocked area and the door is opened.
	Emergency car lighting	Emergency car lighting automatically activated once power failure.
	Inching running	When the elevator enters into emergency electric operation, the car travels at low speed inching running.
Emergency	Five way intercom	Communication amid car, car top, elevator machine room, well pit and rescue duty room through walkie-talkie.
function	Fire emergency return	If you start key switch in main landing or monitor screen, all the callings will be cancelled. The elevator directly and immediately drives to the designated rescue landing and automatically opens the door.
	Micro-touch button for car call and hall call	New type micro-touch button is used for operation panel command button in the car and landing calling button.
Man-	Floor and direction indicator inside car	The car shows the elevator floor location and current travel direction.
machine	Floor and direction indicator in hall	The landing shows the elevator floor location and current travel direction.
interface	Car arrival gong	Arrival gong in the car top announces that the passengers arrive.
44	Car ventilation, light automatic shut off	If there is no calling or command signal within the stipulated time, the car fan and lighting will be automatically closed in order to save the energy.
Energy-saving environmental protection		Adopt the most suitable LED green lighting for residential building. It has long service life, low power consumption, downy and bright light.

Optiona	Function	
	Anti-nuisance	In the light duty load, when three more commands appear, in order to avoid the unnecessary parking, all the registered callings in the car will be cancelled.
фф	Group control function	When three or more same model elevator groups are controlled in use, the elevator group can automatically choose the most appropriate response. It avoids the repeated elevator parking, reduces the passengers' waiting time and increases the travel efficiency.
Travel function	Duplex control	Two sets of same model elevators can unified respond the calling signal through the computer dispatch. In this way, it reduces the passengers' waiting time to the greatest extent and enhances the travel efficiency as well.
	Open the door in advance	When the elevator decelerates and enters into door open zone, it automatically opens the door to enhance the travel efficiency.
	Door-opening re-leveling	When the elevator door opens and leveling fluctuation occurs due to change of the car load, the system automatically runs the elevator to leveling position by its own leveling speed under the conditions of door-opening.
	Absolute-Location Positioning System	By installing APS absolute-location positioning system, the car landing location can be accurate positioning to realize accurate operation of elevator.
<b>①</b>	Caution Pinch Function	Setting up a three-dimensional infrared protection area at the elevator door jamb. The door operator will stop running when foreign matter is detected at this area to effectively prevent fingers from being caught into the door jamb while the door operator is running.
Safety function	3D Door Protection Function	To make a photocell protection three-dimensional area with the technology of TOF combined with infrared ray, and prevent passenger from being crashed and caught with car door.
	Re-power supply protection device	When the power is turned off and on again, it can effectively suppress the instantaneous fluctuation of the power supply and reduce the influence of the electronic components by the power fluctuation.
	Voice announcer	When the elevator normally arrives, voice announcer informs the passengers about the relevant information
	The second operation box	It is used in the large loading weight elevators or the elevators with crowded passengers so that more and more passengers can use the car.
	Operation box for the disabled	It is convenient for the wheelchair passengers and those who have visual disorder.
	IC card control function	All (partial) landings can only input car commands through IC Card after the authorization.
	Voice Calm Function	When the elevator is breakdown, the comfort and calm voice will be automatically released to prevent the passenger from doing the wrong operation to cause more serious accident.
Man- machine	Intelligent voice call	Automatic registration of elevator floors is realized by using voice recognition technology, and contact-free registration of target floors is realized by voice interaction.
interface	Face recognition call	Through the face recognition technology, the key feature information of the person's face is captured and scanned at high speed during the ride to achieve the purpose of automatically registering floors without contact.
	Bluetooth call	Through the Bluetooth function of the mobile phone, the remote opening and closing of elevator doors and the visual appointment call can be realized.
	QR code call	After the user registers in this system, dynamic qr code is automatically generated in the cloud, and the destination floor can be registered by scanning the code when taking the ladder, which is applicable to both users and visitors.
	Professional antibacterial button	The button contact surface made up of the special antibacterial materials can achieve the high efficiency sterilization.
	Camera function in the car	The camera is installed in the car to monitor the car conditions.
	Mobile Phone Commissioning Function	Maintenance worker can do the remote management and commissioning to elevator by mobile terminal platform, which highly improve the service efficiency.
Monitor function	Internet of Things (Remote Monitor)	Connect elevator with internet by the comprehensive application of internet of things, do the 24 hours constantly collection and monitor to daily running information of elevator. Make the early warning and alarm to elevator running failure and accident, graded response and emergency handling to realize the remote real-time monitoring, to ensure passenger safety.
Energy-saving	Energy-Regenerating Technology	Adopt regenerative power device which has remarkable energy-saving effect to convert the potential energy produced by the elevator running to electrical power, then the electrical power support the power grid to maximize realize the utilization rate of renewable energy, help the customer to realize environmental protection, economic interests.
environmental protection	Clean Antibacterial Function	The antibacterial device located in the cabin will regularly do the sterilization and disinfection, real-time ventilation to make sure the clean air of cabin, get it far away from the bacteria.
Emergency function	Auto Return Device	In normal power failure, the chargeable battery supplies the elevator power. The elevator drives to the nearest landing.

Sicher Elevate

# **GRPS20** construction sketch



#### GRPS20 small machine room elevator specifications

Persons	Rated	Rated	Net size of car (mm)	Net size of door (mm) D.WxD.H	Hoistwa	ay size (mı	n)	Machir room size	ne (mm)	Max	
(people)	capacity (kg)	speed (m/s)	C.W x C.D	2P Central opening	H.W x H.D	О.Н	P.D	MR.W x MR.D	MR.H	Max travelin heigh (m)	
8	630	1.0	1400x1100	800x2100	2000x1750	4100	1300	2000x1750	2300	45	
	000	1.75	1100/1100	COUNTION	2000/1100	4300	1400	2000/1100	2500	95	
		1.0				4100	1300	-		45	
10	800	1.75	1400x1350	800x2100	2000x2000	4300	1400	2000x2000	2300	95	
		2.0				4400 4700	1500 1700	-		120 150	
		1.0				4100	1300			45	
		1.75				4300	1400	-		95	
		2.0				4400	1500	2200x2 <b>1</b> 50	2300	120	
		2.5	1600x1500		2200x2150	4700	1700			150	
		3.0			5000	2200			150		
		3.5				5400	2700	1	2700	180	
13	1000	4.0		900x2100		5800	3200			180	
13	1000	1.0		900X2100		4100	1300			45	
		1.75				4300	1400		2300	95	
		2.0	1100×2100		2100×2500	4400	1500	2100×2500	2000	120	
		2.5	1100x2100		2100x2500	4700	1700			150	
		3.0			5000	2200		2700	150		
		3.5				5400	2700	-	2700	180	
		4.0				5800	3200				180
		1.0				4200 4300	1350	-		45 95	
		1.75 2.0				4400	1500 1600	-	2300	120	
15	1150	2.5	1700x1500	1000x2100	2300x2150	4700	1700	2300x2150		150	
15	1130	3.0	1700X1500	1000X2100	2300X2130	5000	2200	2300X2130		150	
		3.5				5400	2700	-	2700	180	
		4.0				5800	3200			180	
		1.0				4200	1350			45	
		1.75			4300 1500	2200	95				
	2.0			4400	1600		2300	120			
16	1250	2.5	1950x1400	1100x2100	2600x2050	4700	1700	2600x2050		150	
		3.0				5000	2200			150	
		3.5				5400	2700	1	2700	180	
		4.0				5800	3200			180	
		1.0				4200	1350			45	
		1.75				4300	1500		2300	95	
		2.0	# # # # # # # # # # # # # # # # # # #			4400	1600		2300	120	
18	1350	2.5	1950x1550	1100x2100	2600x2200	4700	1700	2600x2200		150	
		3.0				5000	2200		2722	150	
		3.5				5400	2700	-	2700	180	
		4.0				5800	3200			180	
		1.0				4200	1350	-		45	
		1.75				4300	1500	-	2300	95	
21	1600	2.0	1950x1750	1100x2100	2600x2400	4400 4700	1600 1700	2600x2400		120 150	
21	1000	3.0	1330/1130	1100/2100	2000/2400	5000	2200	2000072400		150	
		3.5				5400	2700	-	2700	180	
		4.0				5800	3200	-	2100	180	
		1.0				4200	1350			45	
		1.75				4300	1500	1	2222	95	
		2.0				4400	1600	1	2300	120	
26	2000	2.5	2100x1950	1200x2100	2800x2600	4700	1700	2800x2600		150	
		3.0			5000 2200		150				
		3.5			5400	2700	1	2700	180		
		4.0				5800	3200	1		180	

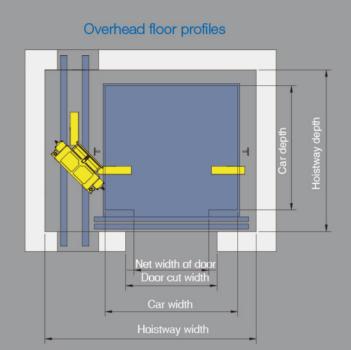
<sup>\*</sup>For stretcher elevator

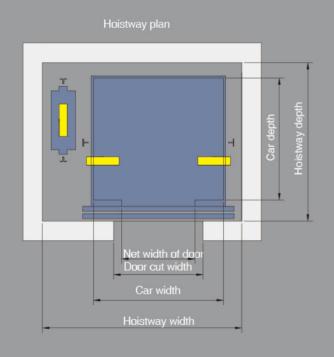
Note: The specific parameters are subject to the actual drawings.

023 Sicher Elev

# **GRPN20** construction sketch

# Hoistway elevation





#### **GRPN20** machine roomless elevator specifications

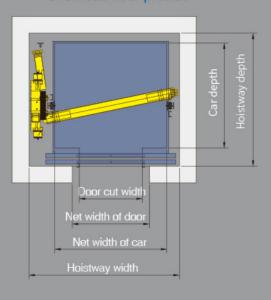
Persons	Rated capacity (kg)	Rated	Net size of car (mm)	Net size of door (mm) D.WXD.H	Hoistway size (mm)			Max traveling
(people)		speed (m/s)	C.W x C.D	2P Central opening	H.W x H.D	O.H	P.D	height (m)
8	630	1.0	1400x1100	800x2100	2350x1600	3900	1400	45
0	630	1.75	1400X1100	800X2100	2330X1600	4100	1500	60
		1.0		800x2100	2350x1750	3900	1400	45
10	800	1.75	1400x1350			4100	1500	60
		2.0				4200	1700	75
		1.0	1600x1500	900x2100	2550x1900	3900	1400	45
13	1000	1.75				4100	1500	60
		2.0				4200	1700	75
		1.0		1100x2100	3100x1900	4300	1500	45
16	1250	1.75	1950x1400			4400	1600	60
		2.0				4500	1700	75
		1.0				4300	1500	45
18	1350	1.75	1950x1550	1100x2100	3100x2000	4400	1600	60
		2.0				4500	1700	75
		1.0				4500	1500	45
21	1600	1.75	1950x1750	1100x2100	3100x2200	4600	1600	60
		2.0				4700	1700	75

Note: The specific parameters are subject to the actual drawings.

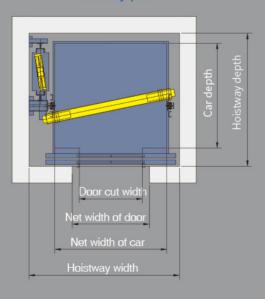
# **GRPN20-VII construction sketch**

# Hoistway elevation

Overhead floor profiles



Hoistway plan



#### GRPN20-VII machine roomless elevator specifications

	201	2.1	Net size of car (mm)	Net size of door (mm) D.WxD.H	Hoistw	<i>ı</i> ay size (n	nm)	Max traveling
Persons (people)		Rated speed (m/s)	C.W x C.D	2P Central opening	H.W x H.D	O.H	P.D	height (m)
0	8 630	1.0	1100v1400	800x2100	1750x1800	3900	1300	45
8	630	1.75	1100x1400			4100	1500	60
10	000	1.0	1400-1250	800x2100	1950x1800	3900	1300	45
10	800	1.75	1400x1350			4100	1500	60
12	1000	1.0				3900	1300	45
13	1000	1.75		900x2100	2150x1900	4100	1500	60

Note: The specific parameters are subject to the actual drawings.

## **GROS** construction sketch

# Hoistway elevation Machine room plan Hoistway plan Door cut width

Note: the conceptual diagram takes the semi-circular panorama lift as an example.

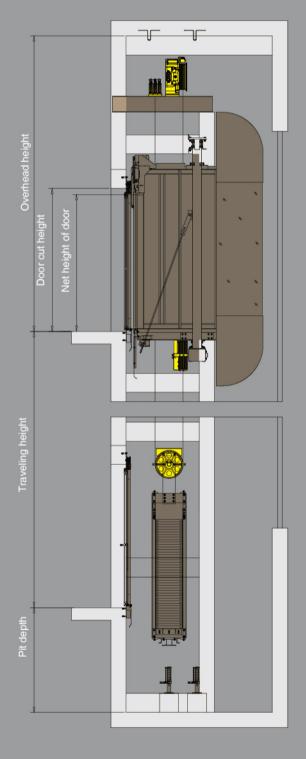
#### GROS small machine room observation elevator specifications

Persons	Rated	Rated	Net size of car (mm)	Net size of door (mm)	Hoistway	size (mm	1)	Machii room size	ne (mm)	Car shape	Max traveling
(people)	capacity (kg)	speed (m/s)	C.W x C.D	2P Central opening	H.W x H.D	O.H	P.D	MR.W x MR.D	MR.H		height (m)
8	630	1.0	1400×1100	800×2100	2200×1650	4100	1400	2200×1650	2500		45
0	030	1.75	1400×1100	800 × 2100	2200 × 1030	4300	1500	2200 ~ 1030	2500		95
		1.0				4100	1400				45
10	800	1.75	1400×1350	800×2100	2200×1850	4300	1500	2200×1850	2500		95
10	800	2.0	1400 × 1550	800 × 2100	2200 × 1830	4400	1600	2200 × 1830	2500		120
		2.5				4700	1700				150
		1.0		-	4	4100	1400				45
13	1000	1.75	1600×1500	900×2100	2400×1950	4300	1500	2400×1950	2500		95
13	13 1000	2.0	1600 × 1500	900 ~ 2100	2400 ^ 1950	4400	1600	2400 ^ 1950	2500		120
		2.5				4700	1700				150
		1.0				4200	1400			Square	45
1.0	1250	1.75	1050×1400	1100 × 2100	2750 × 1000	4300	1500	2750 × 1000	2500	shape	95
16	16 1250	2.0	1950×1400	1100×2100	2750×1900	4400	1600	2750×1900	2500		120
		2.5				4700	1700				150
		1.0				4200	1400				45
		1.75		1100 × 2100	2750 × 2000	4300	1500	2750×2000			95
18	1350	2.0	1950×1550	1100×2100	2750×2000	4400	1600	2750×2000	2500		120
	4	2.5				4700	1700				150
		1.0				4200	1400				45
	1000	1.75		1100×2100	2750×2200	4300	1500	2750×2200	2500		95
21	1600	2.0	1950×1750	1100×2100	2750 × 2200	4400	1600	2750×2200	2500		120
		2.5				4700	1700				150
		1.0				4100	1400				45
		1.75				4300	1500				95
13	1000	2.0	1400×1850	900×2100	2400×1110	4400	1600	2400×2395	2500	Chamfer	120
		2.5				4700	1700				150
		1.0				4100	1400				45
		1.75				4300	1500		V2222		95
10	800	2.0	1200×1650	800×2100	2200×1110	4400	1600	2200×2195	2500		120
		2.5				4700	1700	1		Semi- circular	150
		1.0				4100	1400			shape	45
1000		1.75		000110455		4300	1500				95
13	1000	2.0	1400×1850	900×2100	2400×1110	4400	1600	2400×2395	2500		120
		2.5				4700	1700	-			150
		1.0				4200	1400				45
		1.75		10001/2122		4300	1500				95
15	1150	2.0	1200×2100	1000×2100	2750×1060	4400	1600		2500	Round	120
		2.5			4700	1700	_			150	

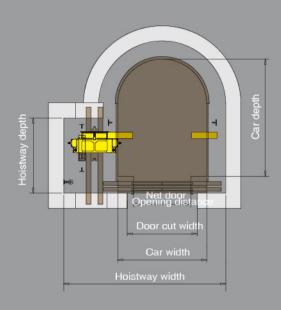
Note: The specific parameters are subject to the actual drawings.

## **GRON** construction sketch

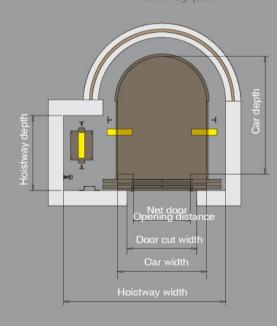
#### Hoistway elevation



#### Machine room plan



#### Hoistway plan



Note: the conceptual diagram takes the semi-circular panorama lift as an example

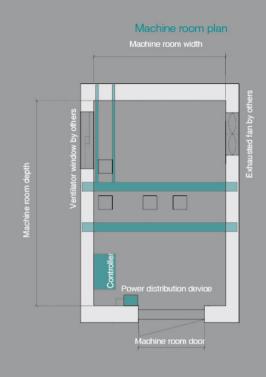
#### GRON machine roomless observation elevator specifications

Persons	Rated capacity (kg)	Rated	Net size of car (mm)	Net size of door (mm)	Hoistv	way size (mn	1)	Car shape	Max traveling	
(people)				speed (m/s)	C.W x C.D	2P Central opening	H.W x H.D	O.H	P.D	
8	630	1.0	1400 × 1100	000×2100	2350×1650	4000	1500		45	
8	630	1.75	1400×1100	800×2100	2350×1650	4100	1600		60	
		1.0				4000	1500		45	
10	800	1.75	1400×1350	800×2100	2350×1750	4100	1600		60	
		2.0				4200	1700		75	
		1.0				4000	1500		45	
13 1000	1.75	1600×1500	900×2100	2550×1950	4100	1600		60		
		2.0				4200	1700		75	
		1.0				4300	1500		45	
16	16 1250	1.75	1950×1400	1100×2100	3100×1900	4400	1600	Square shape	60	
		2.0				4500	1700		75	
		1.0				4300	1500		45	
18	1350	1.75	1950×1550 1	1100×2100	3100×2000	4400	1600		60	
		2.0				4500	1700		75	
		1.0				4500	1500		45	
21	1600	1.75	$1950 \times 1750$	1100×2100	3100×2200	4600	1600		60	
		2.0				4700	1700		75	
		1.0				4500	1600		45	
13	1000	1.75	1400×1850	900×2100	2550×1170	4600	1700	Chamfer	60	
		2.0				4700	1800	Chamier	75	
		1.0				4500	1600		45	
10	800	1.75	1200×1650	800×2100	2350×1080	4600	1700		60	
		2.0				4700	1800	Semi-	75	
		1.0				4500	1600	circular shape	45	
13	1000	1.75	1400×1850	900×2100	2550×1170	4600	1700	snape	60	
		2.0				4700	1800		75	

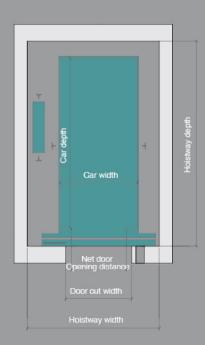
Note: The specific parameters are subject to the actual drawings.

#### GRBS construction sketch





Hoistway plan



Note:The diagram shows two-panel center door bed elevator.

Please refer to the construction layout drawing for other detailed specifications of the bed elevators.

#### GRBS small machine room bed elevator specifications

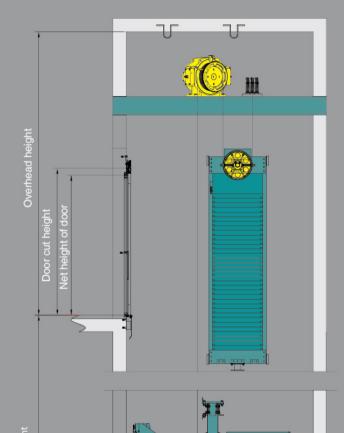
	Rated	Rated	Net size of car (mm)	Net size of door (mm)	Hoistway size (mm)			Machine room size (n	nm)	
Persons (people)	capacity (kg)	speed (m/s)	G.W x G.D	D.WxD.H	H.W x H.D	O.H	P.D	MR.W x MR.D	MR.H	Max traveling height (m)
21	1600	1.0 1.75 2.0 2.5	1400×2400	1100×2100 2P Central opening	2400×2800	4200 4300 4400 4700	1350 1500 1600 1700	2400×2800	2500	45 95 120 150
24	1800	1.0 1.75 2.0 2.5	1500×2500	1100×2100 2P Central opening	2500×2900	4200 4300 4400 4700	1350 1500 1600 1700	2500×2900	2500	45 95 120 150
26	2000	1.0 1.75 2.0 2.5	1500×2700	1200×2100 2P Central opening	2600×3100	4200 4300 4400 4700	1350 1500 1600 1700	2600×3100	2500	45 95 120 150
21	1600	1.0 1.75 2.0 2.5	1400×2400	1100×2100 2P Telescopic opening	2200×2900	4200 4300 4400 4700	1350 1500 1600 1700	2200×2900	2500	45 95 120 150
24	1800	1.0 1.75 2.0 2.5	1500×2500	1200×2100 2P Telescopic opening	2400×3000	4200 4300 4400 4700	1350 1500 1600 1700	2400×3000	2500	45 95 120 150
26	2000	1.0 1.75 2.0 2.5	1500×2700	1300×2100 2P Telescopic opening	2450×3200	4200 4300 4400 4700	1350 1500 1600 1700	2450×3200	2500	45 95 120 150

Note: The specific parameters are subject to the actual drawings.

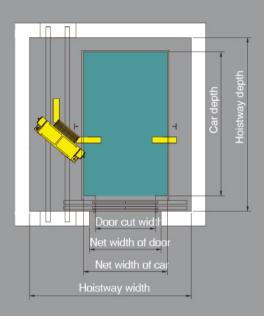
Sicher Elevate

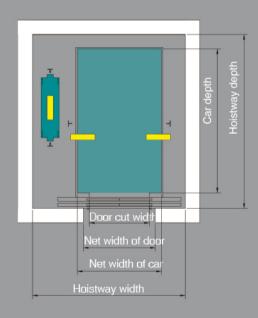
#### **GRBN** construction sketch

#### Hoistway elevation



#### Machine room plan





Note:The diagram shows two-panel center door bed elevator.

Please refer to the construction layout drawing for other detailed specifications of the bed elevator.

#### GRBN machine roomless bed elevator specifications

Persons (people)			Traction ratio	Net size of car (mm)  C.W x C.D  Net size of door (mm)  D.WxD.H		Hoistway si H.W x H.D	Max traveling height		
(kg)		(IIVS)							(m)
21	1600	1.0	2:1	1400×2400	1100×2100	2650×2800	4300	1400	45
21 1000	1.75	2:1	1400 × 2400	2P Central opening	2030 \ 2000	4400	1500	60	
		1.0			1100×2100	20002000	4500	1400	45
24	24   1800	1.75	4:1	1500×2500	2P Central opening	2800×2900	4600	1500	60
2.6		1.0	4:1	1500 + 2700	1200×2100	2000.42100	4500	1400	45
26	2000	1.75		1500×2700	2P Central opening	2800×3100	4600	1500	60
21	1600	1.0		44000400	1100×2100	2550222	4300	1400	45
21	1600	1.75	2:1	1400×2400	2P Telescopic opening	2550×2900	4400	1500	60
24	1000	1.0		15000500	1200×2100	20002000	4500	1400	45
24	1800	1.75	4:1	1500×2500	2P Telescopic opening	2800×3000	4600	1500	60
26	2000	1.0		1500×2700	1300×2100	2800×3200	4500	1400	45
26 2000	1.75	4:1	1500×2700	2P Telescopic opening	2000 \ 3200	4600	1500	60	

Note: The specific parameters are subject to the actual drawings.

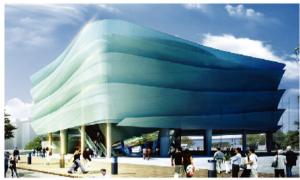
Sicher has a professional technical team that will conduct field surveys on the site and recommend or customize reasonable elevator product models and civil construction plans for users according to actual construction conditions to match users' needs.

#### Work to be done by the owner and civil contractor

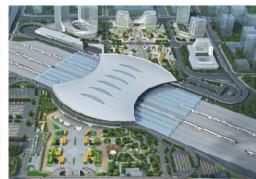
- All buildings in the hoistway must meet the fire protection requirements, and no holes that are not related to elevators and power sources are installed.
- The hoistway must be vertical. The horizontal dimension of the hoistway is the minimum clearance dimension, and the vertical error is 0~+25mm/0~30m, 0~+30mm/30m~60m, 0~+50mm/60m or more.
- When there is space under the bottom of the pit that can be reached by personnel, the counterweight buffer should be installed on a solid pile that extends to a solid ground, or a counterweight safety gear is installed by the elevator manufacturer.
- Before the elevator is installed, all door holes must be provided with a safety enclosure with a height of not less than 1.2 meters, and sufficient strength should be ensured.
- Enclosed hoistway shall be provided with ventilation holes (usually at the top and bottom of the well) as required, and the area shall not be less than 1% of the horizontal area of the hoistway. The ventilation holes shall be provided with protective nets.
- The elevator hall doors, reserved holes of elevator-call display and other reserved holes need to be backfilled and decorated when the elevator is installed.
- The elevator hoistway is preferably a concrete structure. If the hoistway is a frame structure, a concrete ring beam with a height of 300mm should be installed at the installation place of the guide rail bracket, and a concrete beam with a height of 300mm and the same width as the hoistway should be installed on the upper and lower edges of the opening of each floor. If the hoistway is a solid load-bearing brick wall structure, concrete beams with a height of 300mm and the same width as the hoistway should be installed on the upper and lower edges of the reserved hole on each floor.
- When the distance between two adjacent door exceeds 11 meters, a safety door that cannot be opened into the hoistway shall be set between two doors, and the size of the safety door shall not be less than 350mm wide and 1800mm high.
- The pit should be waterproof, if there is a puddle, it should be set at the corner of the wall.
- According to the requirements in the technical parameter table, the power supply should be installed into the machine room and it is installed with a protected switch and locked. The power fluctuation range should not exceed 7%. The neutral wire and ground wire of the power supply should be separated, and the grounding resistance value should not be greater than 4 Ω.
- The temperature in the machine room should be maintained at 5~40°C. The machine room should be flat and must be able to withstand a standard uniform live load which is not less than 7.0KN per square meter. When the floor height of the machine room is different and the difference is greater than 500mm, stairs or steps should be installed and guardrails should be installed.
- The user needs to set up a rescue duty room, and lay one cable with 6 cores (shielded/ twisted pair is recommended) to the each machine room, and each core
  wire has a diameter of at least 0.75 square millimeters.

# Salute the era, Create a beautiful life

# Public utilities







Urumqi High-speed Rail Station



Lanzhou Zhongchuan International Airport



Kunming Metro Line 6



High-speed Rail Stations along the Xingguo-Quanzhou Railway



Beijing People's Daily



Changchun Rail Transit Line 2 of Jilin



Shanghai Metro Xinmei Overpass



Shandong Confucius Research Institute



Beijing China Weapon Research Institute



Shanghai Liu Haisu Art Museum



General Hospital of PLA Chengdu Military Area



Beijing International Biopharmaceutical Innovation and Cooperation Park



Qingdao Industrial Development Service Center for Urban Community Culture



The First People's Hospital of Huizhou



Guizhou Dejiang Health Cultural Industry Center



Inner Mongolia University



Facility Engineering of Beijing Electric Power Company



Puyang Library of Henan

#### Commercial Centers



Sichuan Chengdu Xinxinhe Center



Gansu Tiankong Zhicheng



Hainan Boxiliyawan



Urumqi Bainiaohu Xinjing Center Twin Tower



Shanghai Jing'an Xiehecheng



Anhui Huaqiang Dabieshan Tourist Resort



Zhejiang Zhili Huide International Plaza



Sichuan Luzhou Wancheng International Center

#### Residential Projects



Henan Zensun Huazuan



Zhejiang Shimao Yunlongwan



Hainan Shimei Shanzhuang



Anhui Longsheng Shoufu



Xinjiang Urumqi Shanshui Lande



Inner Mongolia Urban Vienna



Zhejiang Ditang Nanan Future Community



Heilongjiang Harbin Xianglin Mingyuan



Gansu Lanzhou Tianyuan No. 9



Shandong Dong'e Huijing International Modern Life Town



Guangdong Shengshi Shanhu Mingju



Guizhou Dazhong Pangu Center



Guangxi Chundi Qiuyuan

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Banghabundhu Military Museum - Bangladesh



Bombonera Stadium-Mexico





Embassy of the State of Palestine - Pakistan



EXPO 2017 Astana Turkey Pavilion - Kazakhstan





IZTAPALAPA Museum-Mexico







International Conference Center - Zambia



JK Zarafshan City - Uzbekistan



Jomo Kenyatta International Airport - Nairobi



Kuwait University - Kuwait



Manila Ninoy Aquino International Airport - Philippines



Moi International Airport - Mombasa



Oakland Shotlot-Malaysia



Parliament House Mandalay-Myanmar







Silampari Airport - Indonesia



Munara 99 Sabilulungan - Indonesia



The Grand Palace Parking in Addis - Ethiopia

Senamalancha, Dhaka Cantonment-Bangladesh





TEHRAN Railway Station-Iran



The University of Lahore - Pakistan



Tribhuvan International Airport - Nepal