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LEAD THE DEVELOPMENT OF FUTURE  
TRANSPORT BY INNOVATIVE TECHNOLOGY  
以创新科技引领未来出行

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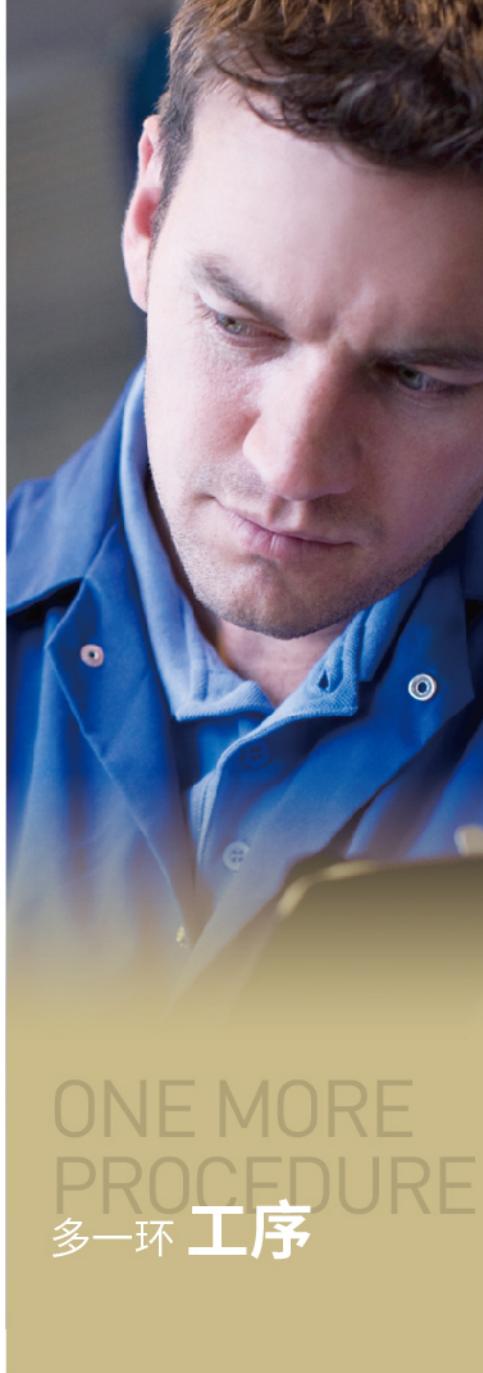
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ONE MORE  
CASE  
多一套 方案



ONE MORE  
PROCEDURE  
多一环 工序



ONE MORE  
PROMISE  
多一份 承诺



ONE MORE  
INSPECTION  
多一轮 检测



ONE MORE  
EXPECTATION  
多一份 守候

SICHER ELEVATOR,  
ALL FOR SAFE REACH  
森赫电梯，只为安全到达



# Strength

## 全球化战略下的森赫电梯

### Sicher Elevator with globalization strategy

#### ● 全球化目标 Globalization goal

成为全球领先的安全电梯服务商  
To become the service provider of global leading safety elevator

#### ● 智能化制造 Intelligent manufacturing

打造成为行业领先的柔性化定制  
化智能制造平台  
To become the industry leading flexible customized intelligent manufacturing platform

#### ● 平台化转型 Platform transformation

从生产制造型企业到服务定制化企业转型  
从技术转化型到技术平台化转型  
Transition from a manufacturing enterprise to a customized service enterprise  
Transition from a technology transformation to a technology platform

#### ● 数字化服务 Digital service

打造大数据云服务平台,让数据驱动服务提升  
To build the big data cloud service platform and make the data drive the service improvement

## 关于森赫

About Sicher

森赫电梯股份有限公司是集研发、制造、销售、安装、维保和现代化更新改造于一体的综合型电梯制造服务商,拥有国家最高等级(A1)的特种设备生产许可资质。公司于2021年9月成功在深圳证券交易所创业板上市(股票简称:森赫股份,股票代码:301056),成为浙江省在创业板上市的首家电梯制造企业,位列中国电梯制造商十强。

历经近二十年的发展,森赫电梯始终以“只为安全到达”为核心理念,聚焦自主核心技术电梯安全两大优势领域,打造电梯全产业链服务平台和智慧工业新生态。公司与中国建筑、中国中铁、中国交建、中冶集团、世茂集团等众多知名企建立了长期战略合作;连续六年获评全国政府采购电梯十佳供应商,并入选中央国家机关集中采购供应商;产品出口80多个国家和地区,成为在俄罗斯、澳大利亚、土耳其、墨西哥、巴西、新西兰、阿联酋、印度、埃及、伊朗、孟加拉国、南非等国家和地区备受尊崇的电梯品牌。

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 six 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.

## 科技引领 载誉前行

Science and Technology Leading Advance with Glory

- 中国电梯制造商10强
- 产品出口80多个国家和地区
- 连续六年全国政府采购电梯十佳供应商
- 关键核心技术获浙江省科技进步一等奖
- 主持、参与起草30余项电梯国家标准、行业标准
- 荣获世界电梯工程奖和大世界基尼斯之最
- 布局全球,并购德国现代化电梯制造工厂
- 中国工业行业履行社会责任五星级企业
- One of the top 10 elevator manufacturers in China
- Products are exported to over 80 countries and regions
- Selected as one of the top 10 elevator suppliers in national government purchase for six consecutive years
- The core technology won the Science and Technology Advancement Award of Zhejiang Province
- Presided over and participated in the drafting of over 30 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

**18T** 18 tons super heavy load  
**超大载重**

# GRF SERIES

## 载货电梯系列



### 适用领域

Application field



工业园区  
Industrial park



仓储基地  
Warehouse base



大型场馆  
Large size venues



其他  
Other

### 18T超大载重—装的下，万物皆可提升

森赫GRF系列载货电梯集成先进的驱动系统和控制系统，安全稳定，性能优越，可设计最大载重18T，针对不同运用场合，森赫都有完善的解决方案。

Sicher GRF series freight elevator integrates advanced drive system and control system, which is safe, stable and has excellent performance, and can be designed with a maximum load of 18T.

Sicher has related solutions for different applications.

### 超大载重

专为大载重货运设计，配套先进驱动系统和控制系统，可设计最大载重18吨。

#### Heavy load

It is specially designed for heavy-duty freight transportation, equipped with advanced drive system and control system, and can be designed with a maximum load of 18T.

### 超大空间

更紧凑的井道结构使得轿厢拥有更大的空间，可容纳更多货物；更大的开门尺寸，方便大型货物进出。

#### Large space

The car has larger space to contain more goods because of more compact hoistway structure. Larger door opening size can facilitate the in and out of the goods.

### 超高强度

整体结构全部采用高强度钢材制作，主要受力部件经过加强处理，轿壁及地板采用经久耐磨钢板，不易变形和磨损。

#### High intensity

The overall structure adopts high intensity steel and main stressed parts are strengthened. The car wall and floor are made up of wear resistant steel plate, which is free from deformation and wear.



可运载各类型 轿车、SUV

It can carry all kinds of car, SUV

# GRA10

## 汽车电梯

Car elevator

专为城市立体交通而生，有效解决汽车垂直运输需求；  
广泛适用于汽车4S店、维修车间，楼顶设停车场的大型商场等。

Specially designed for urban three-dimensional transportation, it can effectively solve the car vertical transportation demands.  
It is widely applied in automobile 4S store, maintenance workshop, large scale shopping mall of the parking lot on the top of the building, etc.



### 便捷操控 出入自如

轿厢内设有双侧操纵箱，  
司机无需下车就可操纵电梯。

Easy to operate, free access

The car has car operation panel on both sides,  
The driver can operate the elevator without getting off.



### 多重保护 智能安全

各层站与轿厢内均设有微电脑控制系统，  
内置诊断程序和备用系统。

Multiple protection, intelligent safety

There are microcomputer control system in each floor and car,  
Built in diagnostic procedure and backup system.



### 成熟技术 平稳运载

成熟汽车升降技术，  
克服汽车运输中轿厢受力不均匀而造成的轿厢晃动。

Mature technology, stable carrying

Mature automobile lifting technology,  
It overcomes the car shaking caused by uneven force of the car in  
automobile transportation.



森赫GRFH10液压载货电梯，  
在空间表现、运载实力上拥有独特的优越性和适用性，  
胜任各类载重需求和提升高度的货运场景。

Sicher GRFH10 hydraulic freight elevator,  
It has unique excellence and applicability in space performance and carrying strength and is  
competent for various load requirements and high-altitude freight scenarios.

# GRFH10

## 液压载货电梯

### Hydraulic freight elevator

#### 机房设置灵活

无需预留顶部机房空间，在井道四周都可设置机房，更符合建筑的个性化需求。

#### Flexible machine room setting

There is no need to reserve the machine room space on the top. We can set the machine room within the hoistway. It can meet the individual demands of buildings.

#### 安全可靠性高

除具备常规电梯安全防护装置外，额外加设限速切断阀等多种液压回路保护系统。

#### High safe reliability

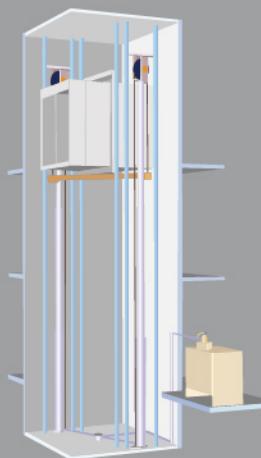
Apart from the conventional elevator safety protection device, it is equipped with speed limiting shut-off valve and various hydraulic circuit protection system.



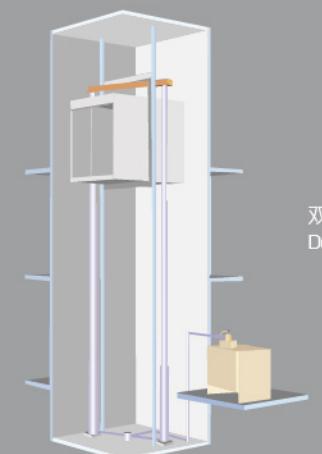
**多样化的提升方式**  
Diversified lifting modes



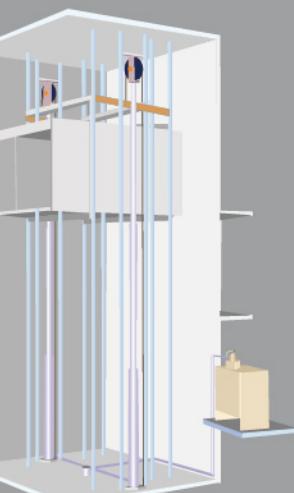
单缸侧置式 4:2  
Single-cylinder side action type 4 : 2



双缸侧置式 2:1  
Double-cylinder side action 2 : 1



双缸侧置直顶式 1:1  
Double-cylinder side action direct drive 1 : 1



双缸侧置式 6轨 2:1  
Double-cylinder side action 6-rail 2 : 1



# Service

森赫SICE物联网云平台

Sicher SICE Internet of things  
cloud platform

24小时大数据智能云端服务  
只为守候每一次安全到达

24-hour big data intelligent cloud service  
To guarantee the secure arrival each time



物联网服务中心  
Internet of things service center

## 周全的售后 及维保服务解决方案

Whole week after sales  
and maintenance service solution

### 担心维保

维保提醒服务，提前3天自动提醒您下次维保时间。

### 担心突发状况

主动报警服务，第一时间报警、定位并规划救援路径。

### 担心安全隐患

自动预警服务，不放过任何异常，及时制定解决方案并反馈给维保人员。

### 担心管理不力

信息互联服务，森赫物联网服务中心、维保单位、物业等多方信息同步。

### Worry about maintenance

Maintenance reminder service, automatic remind of the maintenance time  
next time three days in advance.

### Worry about emergency

Active alarm service, alarm for the first time, positioning and planning of  
rescue path.

### Worry about potential safety hazard

Automatic early warning service, customized solution and feedback to  
maintenance personnel in case of any abnormality.

### Worry about management

Information Internet service, Sicher Internet of things service center,  
maintenance unit, property and other multi-party information synchroniza-  
tion.

SERVICE  
SYSTEM

# Decoration

货梯轿厢装潢

RJ001



## 轿厢装饰配置 (标配)

Car decoration (standard)

轿顶: 涂装钢板 (RS004)

轿壁、轿门: 涂装钢板 (RS004)

操纵箱面板: 发纹不锈钢

地板: 花纹钢板

地坎: 加强铁 (<3T) 铸铁 (>3T)

Car ceiling: Painted steel (RS004)

Car wall & Car door: Painted steel (RS004)

Operation panel: Hairline stainless steel

Car floor: Chequer steel

Sill: Reinforced iron (<3T) Cast iron (>3T)

RJ002



## 轿厢装饰配置 (选配)

Car decoration (optional)

轿顶: 发纹不锈钢

轿壁、轿门: 发纹不锈钢

操纵箱面板: 发纹不锈钢

地板: 花纹钢板

地坎: 加强铁 (<3T) 铸铁 (>3T)

Car ceiling: Hairline stainless steel

Car wall & Car door: Hairline stainless steel

Operation panel: Hairline stainless steel

Car floor: Chequer steel

Sill: Reinforced iron (<3T) Cast iron (>3T)

# Decoration

装潢

## 厅门系列

Hall door series



RT001

旁开两扇门  
2P side opening



RT002

中分四扇门  
4P center opening

厅门: 涂装钢板 (RS004) (标配)  
发纹不锈钢 (选配)  
门套: 与厅门相配  
地坎: 加强铁 ( $\leq 3T$ ) 铸铁 ( $> 3T$ )  
  
Landing door: Painted steel (RS004) (standard)  
Hairline stainless steel (optional)  
Jamb: Match to landing door  
Sill: Reinforced iron ( $\leq 3T$ ) Cast iron ( $> 3T$ )



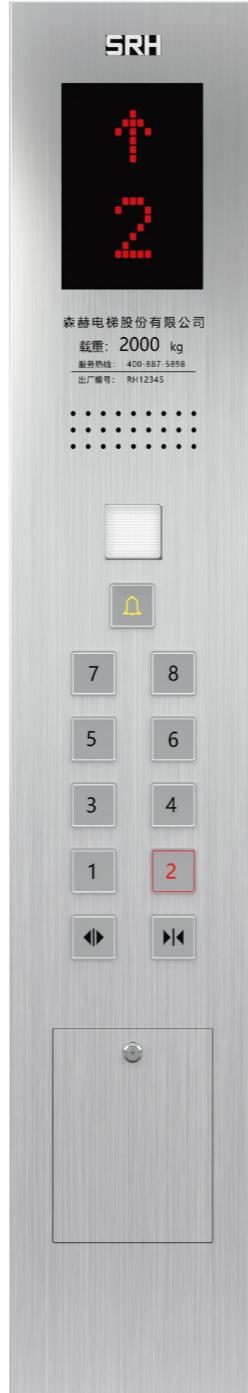
RT003

中分六扇门  
6P center opening

## 操纵箱与召唤盒

Operation panel and hall call box

RC330



森赫电梯股份有限公司  
载重: 2000 kg  
额定速度: 400-887-5896  
出厂编号: RH12345

RZ330-1-3

无底盒  
No bottom box



## 地板

Floor



RP001

花纹钢板  
Chequer steel

## 防撞条 (选配)

Anti-collision strip (optional)



## 可选色卡

Optional color cards

RS001

RS004

RS007

# Function

## 功能表

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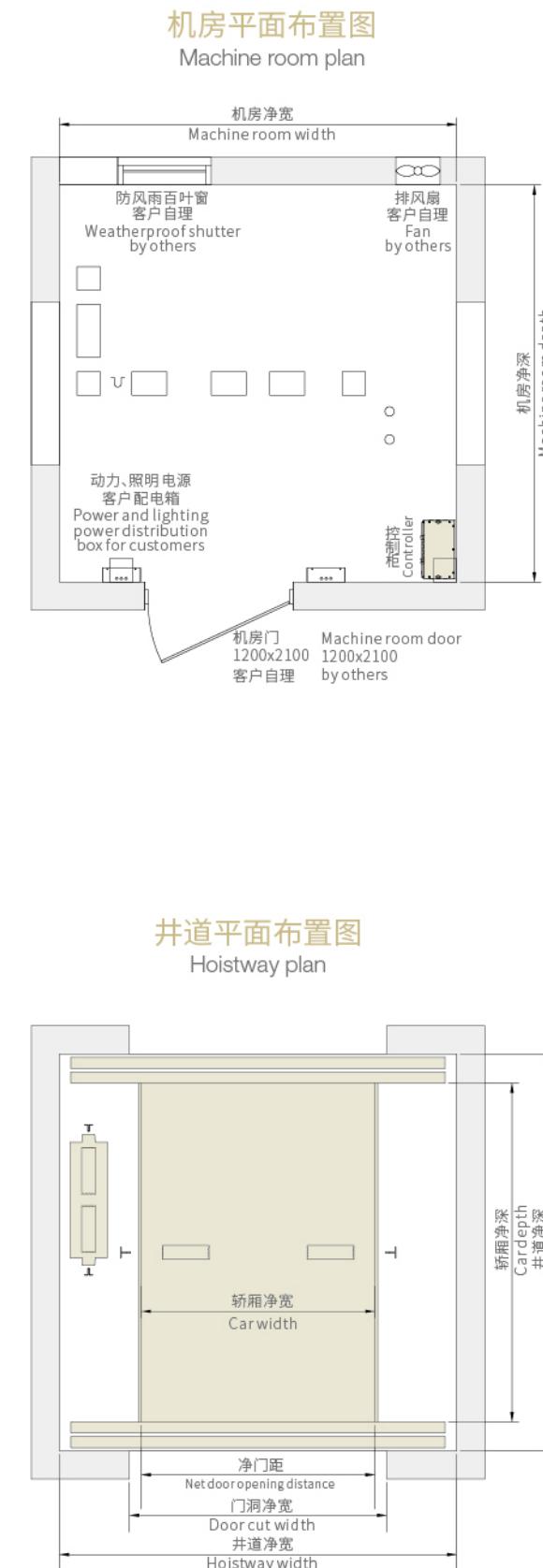
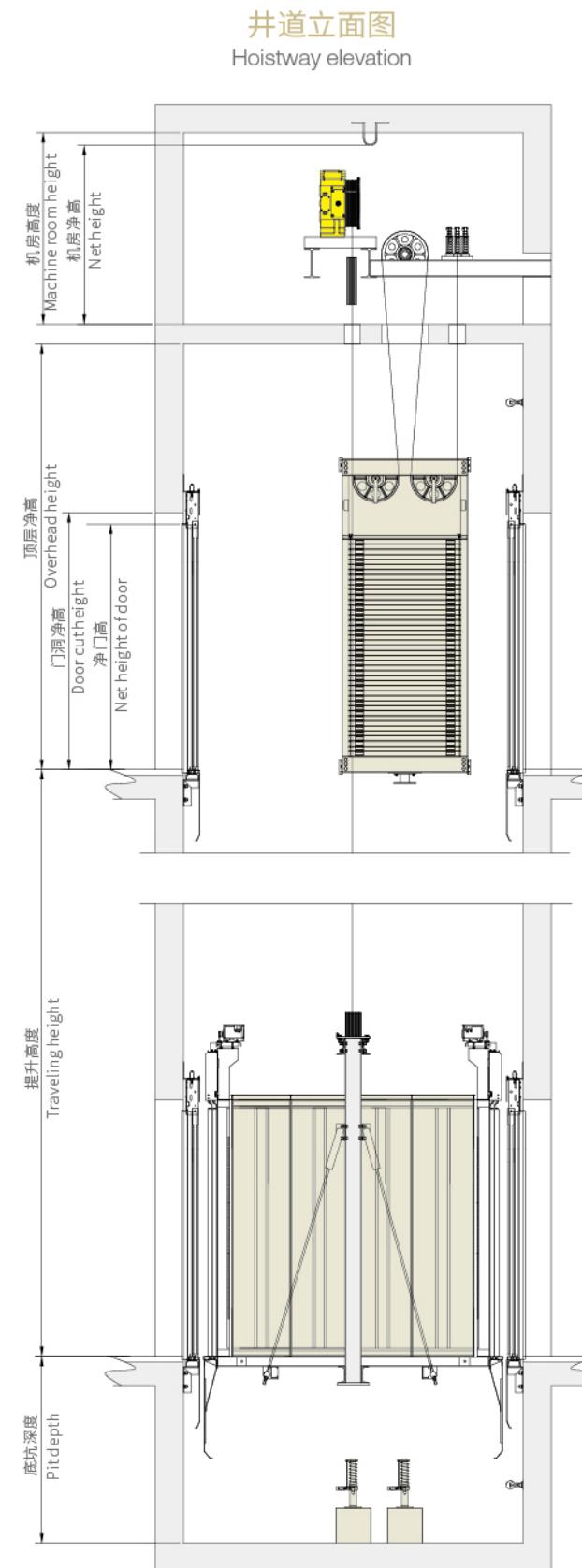
 <b>运行功能</b> Travel function	<b>集选控制</b> Collective selective control  <b>本层重开门</b> Reopen with hall call  <b>停梯开门</b> Car stops and door open  <b>自动返基站功能</b> Automatic returning to the base station  <b>直驶</b> Directly running  <b>自动不停站通过</b> Automatic pass without stop  <b>变频驱动（曳引式）</b> VVVF drive (Traction type)  <b>门机变频驱动</b> VVVF door operator  <b>液压驱动</b> Hydraulic drive  <b>IC卡控制功能 *</b> IC card control function  <b>开门时间延长 *</b> Door open time extending   <b>安全功能</b> Safety function	无司机集选控制操作。 Collective selective controlling without the presence of operator.  关门途中，可以按本层站召唤按钮使门重新开启。 In the door closing process, press reopen with hall call Button can restart the door.  电梯减速平层，直到电梯停稳后才开门。 The elevator decelerates and levels, the door only opens after the elevator stopping.  在交通量低时，无召唤信号的电梯将自动返回基站，关门等待。 When the traffic flow is low, elevator without receiving commanding signals will automatically return to the base floor and standby with the door closed.  在由司机控制情况下，按直驶按钮后，只根据轿厢指令行驶，不应答厅外召唤。 Under the operator's control, after the direct running button is pressed, the elevator only runs directly according to the directives from inside the car and does not respond to any calls from outside.  如轿厢内挤满乘客或负载接近预定值，为保持最大运行效率，该轿厢将自动超过召唤层站。 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.  精确调整电动机转速，令电梯起动、运行、停止时的速度变化曲线平稳、圆滑，得到良好的舒适感。 Motor rotating speed can be precisely adjusted to get smooth speed curve when elevators start, travel and stop and gain the sound comfort.  精确调整电动机转速，使门机的开启、关闭更轻柔灵敏。 Motor rotating speed can be precisely adjusted to get the more gentle and sensitive door machine start / stop.  通过电子阀液体流量的控制，实现电梯的运行。 We fulfill the elevator travel through controlling the liquid flow in the electronic valve.  所有（部分）层站须经授权，方可通过IC卡输入轿厢指令运行电梯。 All (partial) landings can only input car commands through IC Card after the authorization.  按轿厢内的专用按钮，可使门在一段延续时间内保持开门状态，从而便于装卸材料。 Pressing the specialized button in the car, which can keep the door open for a certain period of time, is convenient for loading and unloading of goods.  有时因阻碍或干扰，电梯门未能关闭，电梯门会重复打开或关闭，直到杂物被清除。 If the elevator can not close the door due to certain obstacle or interference, the elevator will reopen or close the door until sundries are eliminated.  由于电源故障引起轿厢停在两层之间，当电源恢复后轿厢将就近自动运行到平层位置。 A power failure might cause the elevator to stop between two floors. However, upon recovery of the power, the car automatically moves to the nearest leveling floor.  轿厢超载时，鸣响蜂鸣器并停止于该层站。 When the car is overload, the buzzer rings and stops the elevator in the same floor.  全面应用物联网技术，将电梯与互联网相连，24小时不间断地对电梯日常运行信息进行收集、监控，对电梯故障及事故进行预警报警、分级响应和应急处理，实现对电梯的远程实时监控，确保乘客安全。 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.
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标“\*”符号为可选配置 Mark "\*" as optional configuration

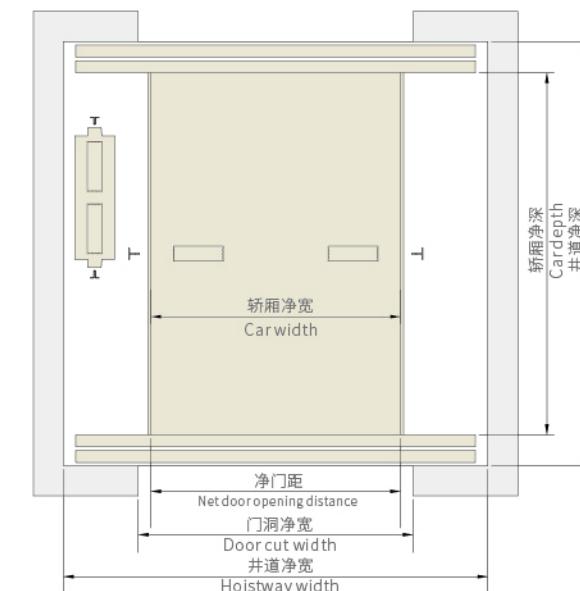
 <b>安全功能</b> Safety function	<b>检修操作</b> Inspection operation  <b>上下越层及上下极限保护装置</b> Up/down over-run and final limit protection  <b>光幕保护</b> Photocell protection  <b>3D门保护功能 *</b> 3D door protection function   <b>应急功能</b> Emergency function	当进入检修状态时，轿厢以慢速点动运行。 When the elevator enters into inspection operation, the car travels at inching running.  该装置可有效地防止当电梯万一发生失控时的冲顶或撞底现象，使电梯更安全可靠。 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.  门开启和关闭期间，用覆盖整个门高度的红外光探测乘客和物体的门保护装置。 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.  利用红外线技术，形成立体保护区域，防止货物及车辆与厅门发生碰撞。 Use infrared technology to form a three-dimensional protective area to prevent collisions between goods and vehicles and the hall door.  停电时，自动打开轿内应急照明。 Emergency car lighting automatically activated once power failure.  通过对讲机，可让轿内、轿顶、电梯机房、井道底坑、救援值班室之间通话。 Communication amid car, car top, elevator machine room, well pit and rescue duty room through walkie-talkie.  启动基站或监控屏上的钥匙开关，所有召唤均被取消，电梯立即驶往指定救援层站停靠，并自动开门。 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.  紧急时，连续按下轿内操纵箱上的警铃按钮，安装于轿厢顶上的电铃会鸣响。 In emergency conditions, if bell button above car operation panel is continuously pressed, electric bell rings on top of the car.  轿内操纵箱指令按钮及层站召唤按钮采用新型微动型按钮。 New type micro-touch button is used for operation panel command button in the car and landing calling button.
 <b>人机界面</b> Man-machine interface	<b>警铃</b> Bell  <b>轿内及层站微动指令按钮</b> Micro-touch button for car call and hall call  <b>轿内层楼、方向指示</b> Floor and direction indicator inside car  <b>层站层楼、方向指示</b> Floor and direction indicator in hall   <b>节能功能</b> Energy-saving function	轿内显示电梯所在层楼及当前运行方向。 The car shows the elevator floor location and current travel direction.  层站显示电梯所在层楼及当前运行方向。 The landing shows the elevator floor location and current travel direction.  在规定的时间内没有召唤或指令信号，轿厢内的风扇和照明会自动关闭，以节能。 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.  通过钥匙开关，电梯可以被召唤到基站（服务完成后），并自动退出服务。 The elevator can be called to base landing (after finishing the service) through the key switch and automatically exists the service.
 <b>远程关闭</b> Remote shut-off		

# GRFS土建示意图

GRFS construction sketch



井道平面布置图  
Hoistway plan



## 业主和土建承包商应完成的工作

井道内一切建筑必须达到防火要求，不得装设与电梯无关设备、电源等无关孔洞。  
 井道必须垂直，井道水平尺寸为最小净空尺寸，且垂直误差0~+25mm/0~30m, 0~+30mm/30m~60m, 0~+50mm/60m以上。  
 当底坑底面下有人员能达到的空间存在，则对重缓冲器应安装在一直延伸到坚固地实心桩墩上，或向电梯厂家询问安装对重安全钳。  
 电梯安装之前，所有层门门洞必须设有高度不小于1.2米的安全防护围封，并应保证有足够的强度。  
 封闭式井道根据需要设通风孔（一般在井道顶部和底部），其面积不得小于井道水平面积的1%，通风孔需设防护网。  
 电梯厅门、呼梯显示预留洞及其他预留孔洞在电梯安装完毕时需进行回填装修。  
 电梯井道最好为混凝土结构。如果井道为框架结构，在导轨支架安装处应设置300mm高的混凝土圈梁，并在每层厅门留洞上沿和下沿均设300mm高与井道同宽的混凝土梁。如果井道为实心承重砖墙结构，应在每层厅门留洞上沿和下沿均设300mm高、与井道同宽的混凝土梁。  
 当两相邻门地坎间距超过11米时，其间应设置——不得向井道内开启的安全门，安全门的尺寸不得小于350mm宽1800mm高。  
 底坑内应防水，若有积水坑，应设在墙角处。  
 根据技术参数表中的要求，把电源拉到机房并设带保护的开关且上锁。电源波动范围不应超过±7%。电源零线和接地线应分开，且接地电阻值不大于4Ω。  
 机房中的温度应保持在5~40°C，机房应平整且必须能够承受不小于7.0kN每平方米的楼面标准均布活载荷。当机房地面高度不一致相差大于500mm时，应设置楼梯或者台阶，并设置护栏。  
 用户需设立救援值班室，并每台铺设通往机房的1根6芯电缆（推荐使用屏蔽/两两双绞线），每芯线径至少0.75平方毫米。

## GRFS有机房载货电梯参数表(4:1)

GRFS machine room freight elevator specifications (4:1)

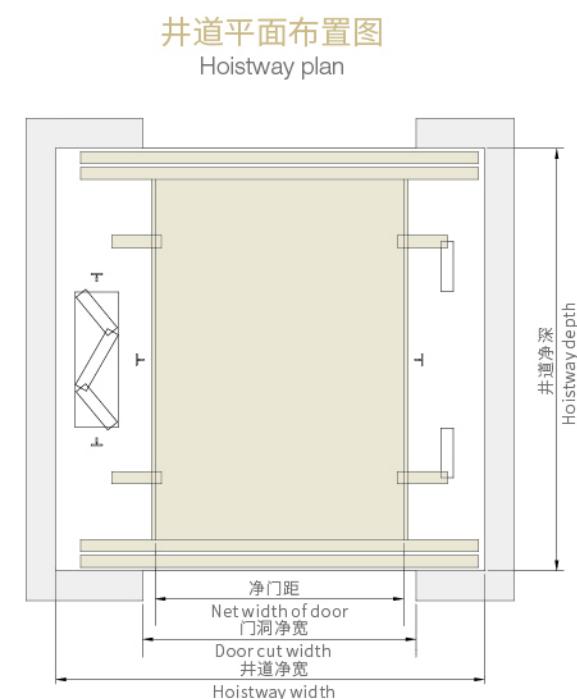
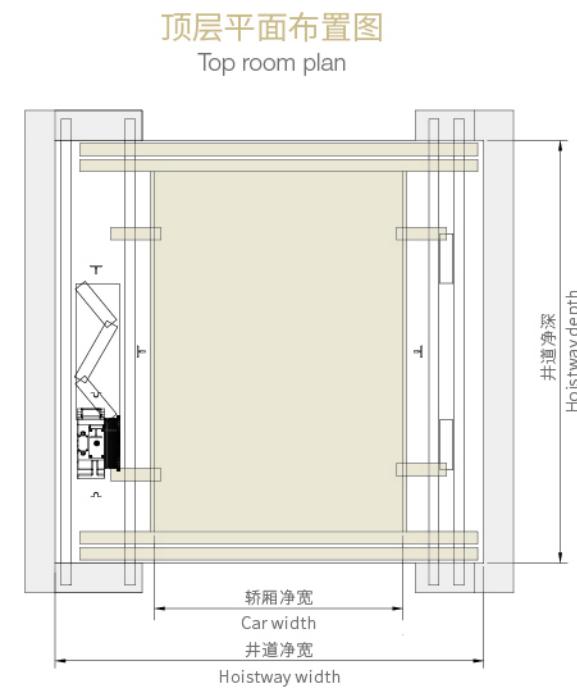
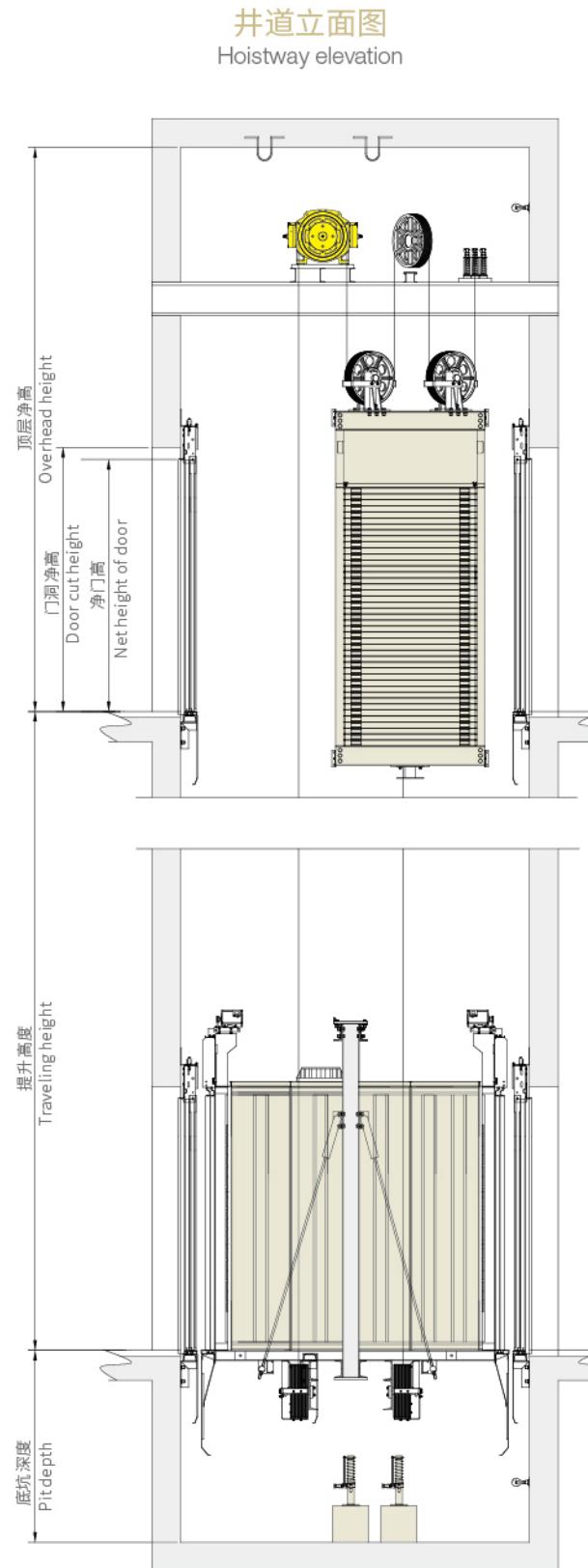
额定载重 (kg) Rated capacity (kg)	额定速度 (m/s) Rated speed (m/s)	轿厢净尺寸 (mm) Net size of car (mm)	净门距(mm) Net size of door (mm)		井道尺寸(mm) Hoistway size				机房尺寸(mm) Machine room size		最大提升 高度(m) Max traveling height
			宽 x 深 C.W x C.D	旁开两扇门 2P telescopic opening	中分四扇门 4P center opening	宽 x 深 H.W x D.H	顶层净高 O.H	底坑深 PD	宽 x 深 MR.W x MR.D	机房高 MR.H	
2000	0.5	1950x2150	1500x2200	1500x2200	2850x2600	4100	1400	2850x2600	2500	30	45
	1.0					4300	1500			45	
3000	0.5	2000x2900	2000x2200	3400x3400	3400x3400	4300	1500	3400x3400	2600	30	45
	1.0					4400	1600			45	
5000	0.5	2400x3600	2400x2400	4000x4100	4000x4100	4500	1600	4000x4100	2700	30	45
	1.0					4600	1700			46	
6000	0.5	2600x4000		2500x2400	4150x4500	4800	1700	4150x4500	2700	30	

注：6吨以上请与技术部联系，具体参数以实际图纸为准。

Note: Please contact the technical department for more than 6 tons, the specific parameters are subject to the actual drawings.

# GRFN土建示意图

GRFN construction sketch



## 业主和土建承包商应完成的工作

井道内一切建筑必须达到防火要求,不得装设与电梯无关设备、电源等无关孔洞。  
井道必须垂直,井道水平尺寸为最小净空尺寸,且垂直误差0~+25mm/0~30m,0~+30mm/30m~60m,0~+50mm/60m以上。  
当底坑底面下有人员能达到的空间存在,则对重缓冲器应安装在一直延伸到坚固地实心柱墩上,或向电梯厂家询问安装对重安全钳。  
电梯安装之前,所有层门门洞必须设有高度不小于1.2米的安全防护围封,并应保证有足够的强度。  
封闭式井道根据需要设通风孔(一般在井道顶部和底部),其面积不得小于井道水平面积的1%,通风孔需设防护网。  
电梯厅门、呼梯显示预留洞及其他预留孔洞在电梯安装完毕时需进行回填装修。  
电梯井道最好为混凝土结构。如果井道为框架结构,在导轨支架安装处应设置300mm高的混凝土圈梁,并在每层门门留洞上沿和下沿均设300mm高与井道同宽的混凝土梁。如果井道为实心承重砖墙结构,应在每层门门留洞上沿和下沿均设300mm高、与井道同宽的混凝土梁。  
当两相邻门地坎间距超过11米时,其间应设置——不得向井道内开启的安全门,安全门的尺寸不得小于350mm宽1800mm高。  
底坑内应防水,若有积水坑,应设在墙角处。  
根据技术参数表中的要求,把电源拉到机房并设带保护的开关且上锁。电源波动范围不应超过±7%。电源零线和接地线应分开,且接地电阻值不大于4Ω。  
机房中的温度应保持在5~40°C,机房应平整且必须能够承受不小于7.0kN每平方米的楼面标准均布活载荷。当机房地面高度不一致相差大于500mm时,应设置楼梯或者台阶,并设置护栏。  
用户需设立救援值班室,并每台铺设通往机房的1根6芯电缆(推荐使用屏蔽/两两双绞线),每芯线径至少0.75平方毫米。

## GRFN无机房载货电梯参数表 (4:1)

GRFN machine roomless freight elevator specifications (4:1)

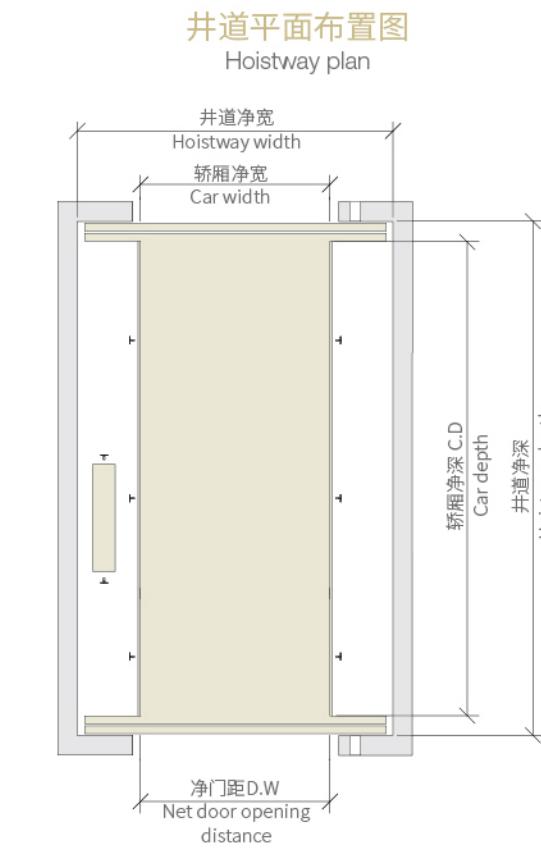
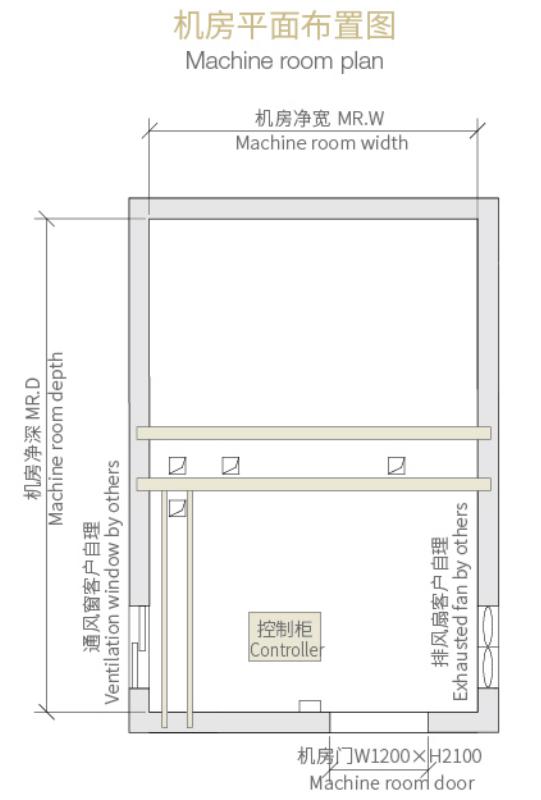
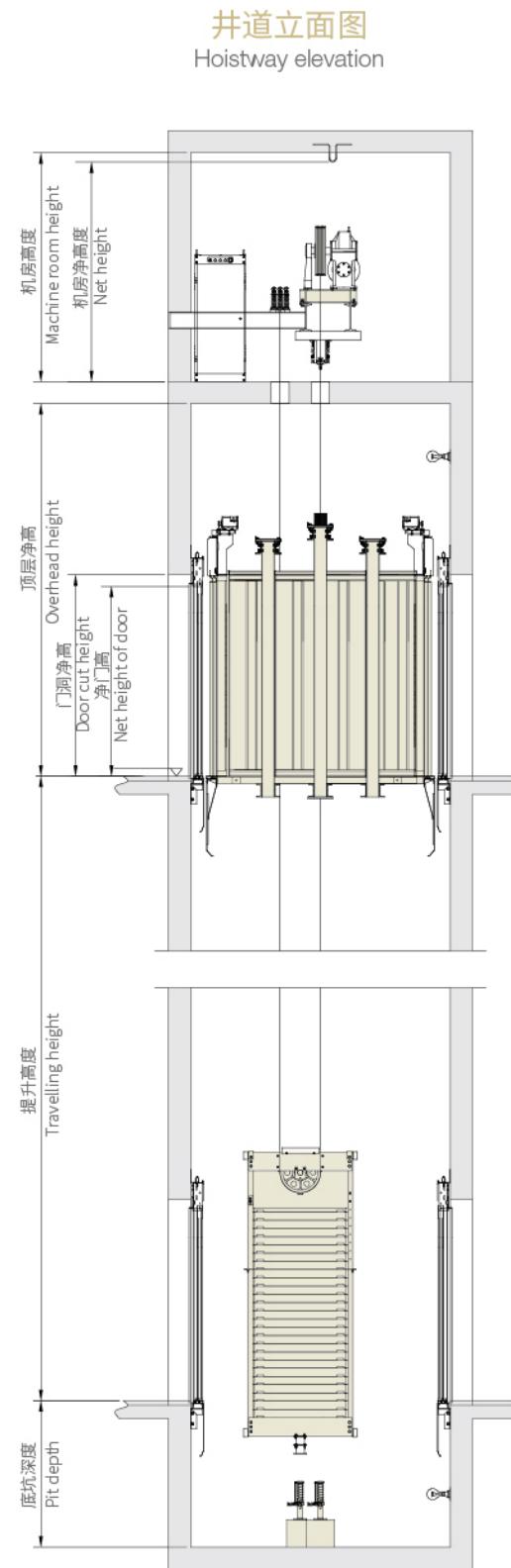
额定载重 (kg) Rated capacity (kg)	额定速度(m/s) Rated speed (m/s)	轿厢净尺寸(mm) Net size of car (mm) 宽 x 深 C.W x C.D	净门距(mm) Net size of door (mm) 宽 x 高 D.WxH.D	井道尺寸(mm) Hoistway size			最大提升高度(m) Maximum lifting height
				中分四扇门 4P center opening	宽 x 深 H.WxH.D	顶层净高 O.H	
2000	0.5	1500x2700	1500x2100	2800x3200	4500	1500	30
	1.0				4600	1600	45
3000	0.5	2000x2900	2000x2200	3450x3400	4500	1500	30
	1.0				4600	1600	45
5000	0.5	2400x3600	2400x2200	4000X4100	4700	1600	30
	1.0				4800	1700	45

注:具体参数以实际图纸为准。

Note: specific parameters are subject to actual drawings.

# GRA10土建示意图

GRA10 construction sketch



## 业主和土建承包商应完成的工作

井道内一切建筑必须达到防火要求,不得装设与电梯无关设备、电源等无关孔洞。  
井道必须垂直,井道水平尺寸为最小净空尺寸,且垂直误差0~+25mm/0~30m、0~+30mm/30m~60m、0~+50mm/60m以上。  
当底坑底面下有人员能达到的空间存在,则对重缓冲器应安装在一直延伸到坚固地实心桩墩上,或向电梯厂家询问安装对重安全钳。  
电梯安装之前,所有层门门洞必须设有高度不小于1.2米的安全防护围封,并应保证有足够的强度。  
封闭式井道根据需要设通风孔(一般在井道顶部和底部),其面积不得小于井道水平面积的1%,通风孔需设防护网。  
电梯厅门、呼梯显示预留洞及其他预留孔洞在电梯安装完毕时需进行回填装修。  
电梯井道最好为混凝土结构。如果井道为框架结构,在导轨支架安装处应设置300mm高的混凝土圈梁,并在每层厅门留洞上沿和下沿均设300mm高与井道同宽的混凝土梁。如果井道为实心承重砖墙结构,应在每层厅门留洞上沿和下沿均设300mm高、与井道同宽的混凝土梁。  
当两相邻门地坎间距超过11米时,其间应设置——不得向井道内开启的安全门,安全门的尺寸不得小于350mm宽1800mm高。  
底坑内应防水,若有积水坑,应设在墙角处。  
根据技术参数表中的要求,把电源拉到机房并设带保护的开关且上锁。电源波动范围不应超过±7%。电源零线和接地线应分开,且接地电阻值不大于4Ω。  
机房中的温度应保持在5~40°C,机房应平整且必须能够承受不小于7.0kN每平方米的楼面标准均布活载荷。当机房地面高度不一致相差大于500mm时,应设置楼梯或者台阶,并设置护栏。  
用户需设立救援值班室,并每台铺设通往机房的1根6芯电缆(推荐使用屏蔽/两两双绞线),每芯线径至少0.75平方毫米。

## GRA10汽车电梯参数表

GRA10 car elevator specifications

额定载重 (kg) Rated capacity (kg)	额定速度(m/s) Rated speed (m/s)	轿厢净尺寸(mm) Net size of car (mm) 宽x深 C.Wx C.D.	净门距(mm) Net size of door (mm) 宽x高 D.Wx H	井道尺寸(mm) Hoistway size	机房尺寸(mm) Machine room size	顶层高度 (mm) Top height O.H		底坑深度 (mm) Pit depth P.D	最大提升高度(m) Max traveling height
						中分四扇门 4P center opening	宽x深 H.WxH.D	宽 MR.W	高 MR.H
3000	0.5	2700x5500	2700x2200	4400x6100	4400x6100	2700	4500	1600	30
5000	0.5	2700x6000	2700x2200	4400x6600	4400x6600	2700	4600	1700	30

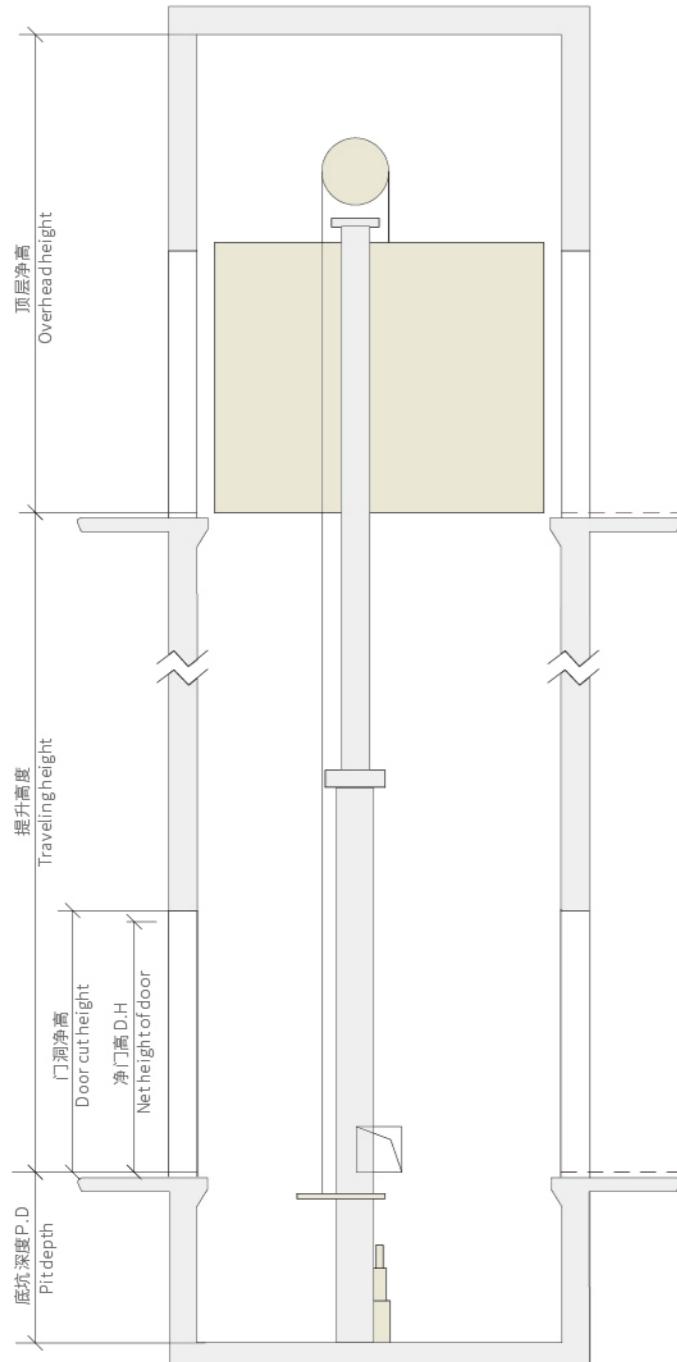
注:具体参数以实际图纸为准。  
Note: specific parameters are subject to actual drawings.

# GRFH10土建示意图

GRFH10 construction sketch

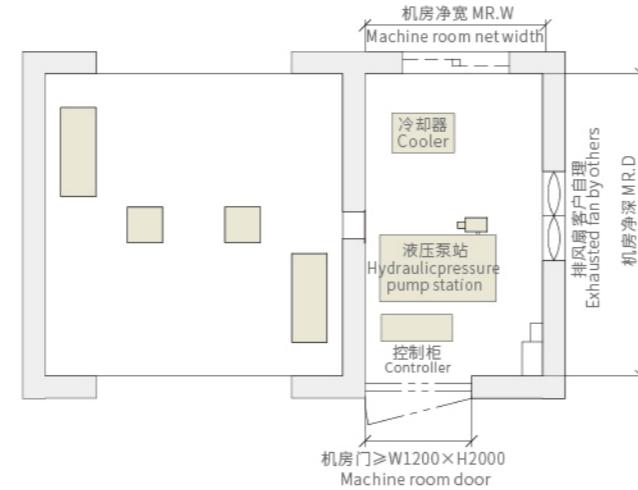
井道立面图

Hoistway elevation



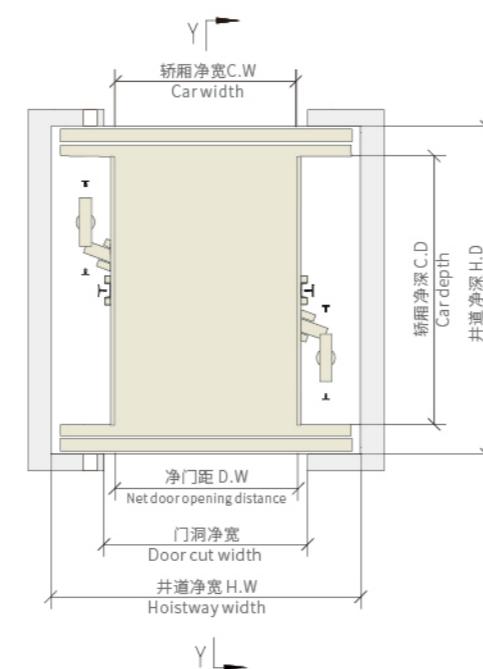
机房平面布置图

Machine room plan



井道平面布置图

Hoistway plan



## 业主和土建承包商应完成的工作

井道内一切建筑必须达到防火要求,不得装设与电梯无关设备、电源等无关孔洞。  
 井道必须垂直,井道水平尺寸为最小净空尺寸,且垂直误差 $0\sim+25mm/0\sim30m, 0\sim+30mm/30m\sim60m, 0\sim+50mm/60m$ 以上。  
 当底坑底面下有人员能达到的空间存在,则对重缓冲器应安装在一直延伸到坚固地实心柱墩上,或向电梯厂家询问安装对重安全钳。  
 电梯安装之前,所有层门门洞必须设有高度不小于1.2米的安全防护围封,并应保证有足够的强度。  
 封闭式井道根据需要设通风孔(一般在井道顶部和底部),其面积不得小于井道水平面积的1%,通风孔需设防护网。  
 电梯厅门、呼梯显示预留洞及其他预留孔洞在电梯安装完毕时需进行回填装修。  
 电梯井道最好为混凝土结构。如果井道为框架结构,在导轨支架安装处应设置300mm高的混凝土圈梁,并在每层厅门留洞上沿和下沿均设300mm高与井道同宽的混凝土梁。如果井道为实心承重砖墙结构,应在每层厅门留洞上沿和下沿均设300mm高、与井道同宽的混凝土梁。  
 当两相邻门地坎间距超过11米时,其间应设置——不得向井道内开启的安全门,安全门的尺寸不得小于350mm宽1800mm高。  
 底坑内应防水,若有积水坑,应设在墙角处。  
 根据技术参数表中的要求,把电源拉到机房并设带保护的开关且上锁。电源波动范围不应超过±7%。电源零线和接地线应分开,且接地电阻值不大于 $4\Omega$ 。  
 机房中的温度应保持在 $5\sim40^\circ C$ ,机房应平整且必须能够承受不小于 $7.0KN$ 每平方米的楼面标准均布活载荷。当机房地面高度不一致相差大于500mm时,应设置楼梯或者台阶,并设置护栏。  
 用户需设立救援值班室,并每台铺设通往机房的1根6芯电缆(推荐使用屏蔽/两两双绞线),每芯线径至少0.75平方毫米。

## GRFH10液压载货电梯参数表

GRFH10 hydraulic freight elevator specifications

额定载重 (kg) Rated capacity (kg)	额定速度 (m/s) Rated speed (m/s)	液压型式 Cylinder type	轿厢净尺寸 (mm) Net size of car (mm)	净门距(mm) Net size of door (mm)		井道尺寸(mm) Hoistway size				机房尺寸(mm) Machine room size		最大提升 高度(m) Max traveling height	
				宽x深 C.W x C.D	宽x高 D.WxH.D	旁开两扇门 2P telescopic opening	中分四扇门 4P center opening	宽x深 H.WxH.D	顶层净高 O.H	底坑深 P.D	宽x深 MR.WxMR.D	机房高 MR.H	
1000	0.5	单缸式4:2 1 cylinder	1300x1750	1300x2200				2400x2150	4200	1550	2000x2150	2300	23.5
2000	0.5	单缸式4:2 1 cylinder	1500x2700	1500x2200				2800x3100	4200	1550	2000x3100	2300	23.5
3000	0.25	双缸式2:1 2 cylinder	2000x2900		2000x2200	3400x3400	4200	1550	2000x3400	2300	18		
5000	0.25	双缸式2:1 2 cylinder	2400x3600		2400x2400	4000x4050	4500	1700	2400x4050	2300	12		

注:具体参数以实际图纸为准。  
 Note: specific parameters are subject to actual drawings.