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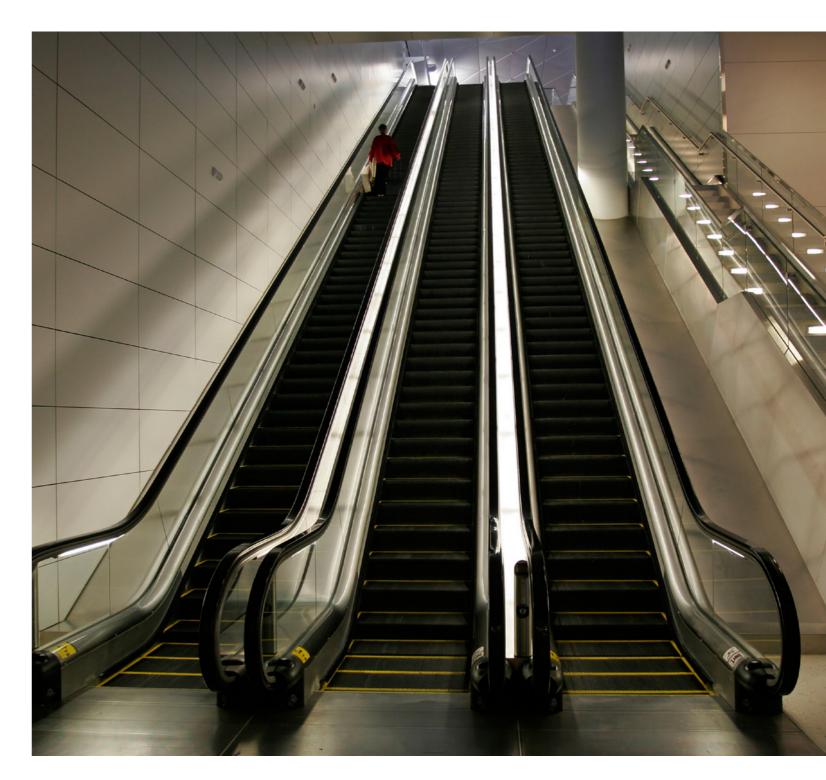
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自动扶梯 自动人行道 Escalators, Moving walk



SHANGHAI MIDDIAMOND ELEVATOR
自动扶梯概述
Escalator summary

上海中菱系列自动扶梯采用国际先进的制造技术,符合 GB16899-2011《自动扶梯和自动人行道的制造与安装安全规范》等现行标准,具有精巧的结构、精良梯路、精致的带路、精美的外型,运行平稳。维修方便,给乘客亮丽,舒适的全新感觉,让您领略现代建筑的超凡魅力和豪华气派。

上海中菱系列自动扶梯适用于商场、超市、地铁、机场、展览馆等客流量大的场所,为您的建筑增添一道亮丽的流动风景线。

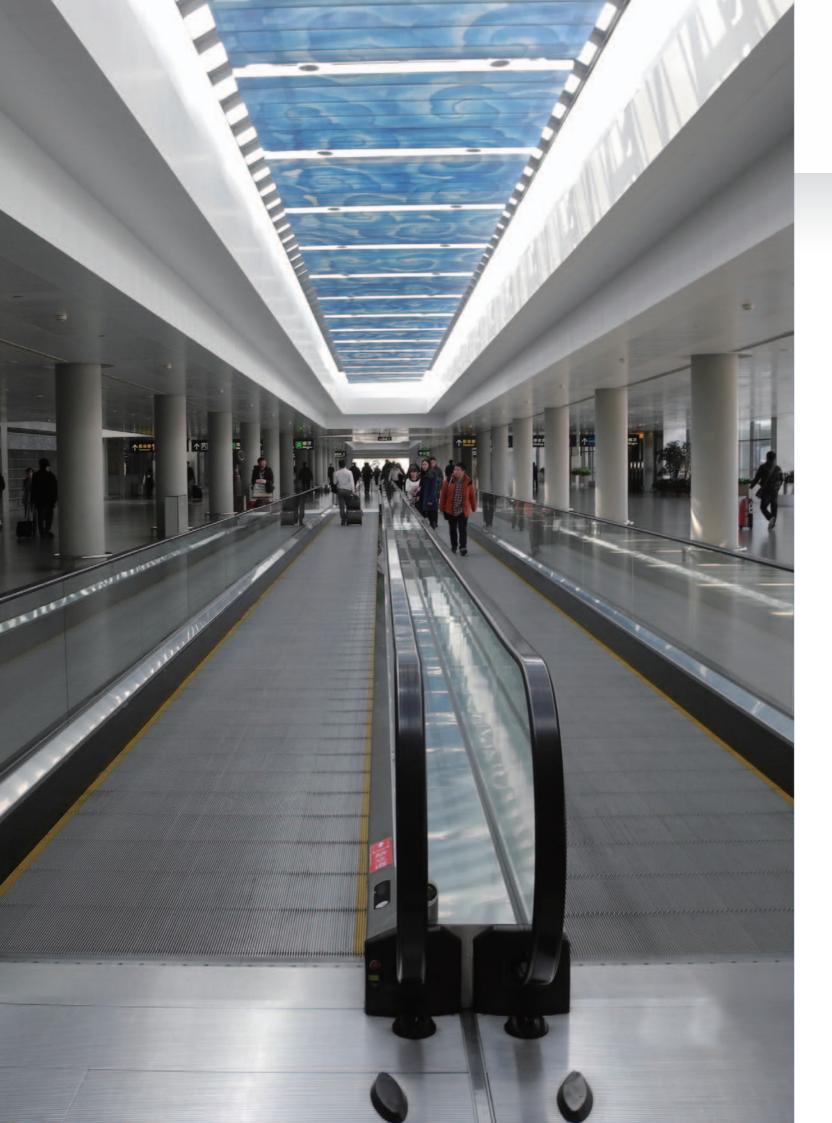
SHMD series escalator adopt the advanced international technology for its design and manufacture. It meets the standard of GB16899-2011 of Safety rules for the construction and installation. It has the features such as exquisite structures, consummate step. smart railling, pleasing outine model, smooth running, easy maintenance etc. It provides vast passengers with a brand-new feel of brightness and coziness.

It makes the feelings of the extra-ordinary and luxury, which is coming from modern architectures. It is widely applicable in various public places, such as the shopping mall, superm arket, subway, airport, exhibition halls.



# 自动扶梯的优越性能 Advantageous Performances of Escalator

- ◎ 桁架采用角钢,独特的结构,强度高,防腐处理彻底,效果好,寿命长。
- ◎ 整机模块化设计,结构紧凑,通用性强。
- 先进的国际制造工艺及总装工装,保证了梯路的精准。
- ◎ 大直径的梯级滚轮,运行平稳,噪音更小,寿命加长。
- ◎ 人性化的扶手入口保护加装毛刷,更加安全。
- ◎ 围裙和内外盖板采用不锈钢更显豪华。
- ◎ 蚀刻花纹不锈钢前沿板有多种花纹可供选择,美观大方立体感强。
- ◎ 超强的 CPU 主板电脑控制,实时监控运行状况,发现异常及时自动停车,即时自动记录并显示故障代码。
- 可选用变频驱动控制,根据客人流量自动控制运行速度,节能效果显著,提高设备的运行寿命,降低运行成本。
- The truss utilizes first class angle steel with unique structre, high strength and complete durable features.
- O The overall design is comcise and smoothe and compatble.
- $\ \ \bigcirc$  The advanced international craftsmanship ensures the accuracy of steps.
- ① The large size dimeter of step foller with stable running, low noise and long lifetime.
- The human-oriented handral entrance is secured by brush.
- The skirt panel,inside and outside of cover plate are made of stainless steel.
- © Etched stainless steel from panels are available with various patterns.
- The main board of supet CPU monitors the operation in real time, which can autormatically stops the running and records the error code in case of any abnormal condition happen.
- VVVF is optional for control running speed to save energy. It can prolong the lifetime and operations cost.



# 自动人行道概述

Moving walk summary

在缤纷的现代都市里,大型超市、公共建筑物里、机场、展览中心及运输转换站等公 共交通运输场合,自动人行道因其产品自身的特点,不仅能满足人流量巨大的运输问题, 也能满足步行和运送行李车、婴儿车、购物车、残疾车等使人们在乘坐的时候特别是在购 物之际上楼下楼有如履平地的感觉,极大的方便了人们的出行和购物。其方便、快捷、愉 悦的乘坐需要,由此也成为各大型超市、机场、展览中心及运输转换站的首选解决方案。



In the multi-colored modern metropolis, the public traffic and transport occasions such as large-size supermarket, public construction, airport, exhibition center, transport transformation station and so on, the auto-walk can not only tackle the traffic problem of gigantic stream of people, but also satisfy feel that it is like walking in the flat road while actually up and down in purchasing the goods out of its own characteristics. It is also applicable for the long-distance walking, conveying the luggage vehicle, baby's cart, purchase vehicle, handicapped vehicle etc. It is greatly convenient for people's outing and purchase. Therefore, it becomes the first-choice solution in various large-size supermarkets, airports, exhibition centers, transport transformation stations because of its convenient, prompt and pleasant riding needs.



# 自动人行道的优越性能 Advantageous Performances of Moving walk

- ② **结构紧凑, 应变自如:** 短踏板大大缩小了空间的跨度, 使整机桔构更为紧凑, 可灵活适应建筑格局, 为客户节省宝贵的建筑空间。 分水平型, 倾斜型的产品规划系列, 可使客户依具布局构想自由选择。
- ◎ 符合质量/安全标准:短踏板表面的防滑槽设计,具备良好的防滑性能,使乘行安全舒适。梳齿极小的倾斜角度,可使购物手推车便捷自如地进出自动人行道。专用主机,,安全保护功能齐全,运行平稳,驱动效率高。先进的微机控制系统能全面监控自动人行道的运行状态,及时消除运行隐患,减少维护时间。
- ◎ **稳定可靠的投资**: 短踏板与传送链直接相连,自动人行道运行更为宁静平稳,整机的使用周期得以大大延长,产品维护也更加方便。特别设计的大滚轮扶手驱动,运行噪音低,驱动力大,改善了扶手运行条件,使扶手带的使用寿命更长。独特的矩形方管结构具有强大的负载能力,极大地提高了整机运行的稳定性,延长了产品的使用寿命。
- ◎ **缤纷多彩的装饰效果**: 扶手带款式多样,可满足不同环境的个性化需求。冲压花纹式前沿板,美观大方,更具立体感。内外盖板采用高质量不锈钢。
- ◎ **无可比拟的经济性**:自动人行道充分运用先进的制造工艺,大大提高了产品的性能,延长了整机的使用周期,直接的效应就是减少了客户的营运成本,可选用的变频驱动技术,节能效果显著,最大程度地降低整机的运行成本。

#### Compact structure, ease strain

short pallets can greatly reduce space span, which can flexibly fits the building structure and save the construction space. It comprises Hversion(horizontal). I version(incline) and C version(compact) can let the customer have a free choice on his original layout.

#### O Conform to quality/safety standard

Slip-free grooves on pallet surface have an excellent slip-proof function which makes the ride safe and comfortable. Slightly inclined combs can make trolleys easily get on anveyors. SHMD traction machine with complete protecting function runs smoothly and drives efficiently. Advanced microcomputer controlling system can fully monitor the running status of the moving walk.

#### O Stable and reliable investment

The pallet directly connecting with the chain which makes the running more smoothly and quietly, thus the service life is extended and its maintenance can be easily conducted. Special designed big wheel handrail drive runs in low noise and big power, which improves the running condition of handrail, its life is hence prolonged. Unique angleiron structure has a big load capacity, which greatly improves the overall stability and service life.

## Colorful decoration

Various styled handrail can meet personal demand in different environments. Beautiful stainless steel floor plate has a three-dimension effect. Inner and outer ocver plate adopts stainless.

## Incomparable economical

The moving walk fully utilizes advanced manufacturing process, greatly improves product performance and service life, the most direct effect is that the operation cost of the customer is reduced. The optional VVVF drive technology yields great energy-saving, reducing the running cost to the maximum.



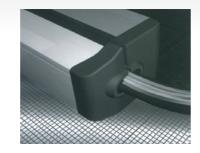


## 扶手入口

Handrail inlet

新颖别致、富有现代时尚感的流线型扶手带出入口设计,赋予扶梯更多的灵性和亲和力,蕴含对用户的细心体察。尽现灵活、圆润、顺畅的美感,又可彰显周围建筑的典雅与尊贵。

The escalator is richly endowed with the intelligence and popularity by the novel, distinc-tive, elegant, tensile and modernized streamline handrail inlet and outlet design model, it appears to be more beautiful in the outer appearance, it displays the nobleness and imposes manner of the conveying constructions.



## 围裙照明

Skirt panel illumination

沿着梯级(踏板)弧形运行轨迹布局的围裙板照明,可使乘客倍感舒心与安全

The skirt board illumination arranged alongside the step's arc moving contour makes the passengers feel more comfortable and safe.

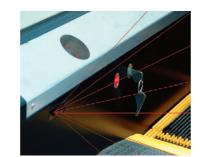


# 自动启用 / 停止运行装置

Automatic start / stop travel device

位于出入口前沿踏板两侧的红外线传感器装置可实时检测到进入该区域的乘客,并通讯控制微机自动使扶梯(人行道)运行;当所有乘客离开后会自动停梯,达到最佳节能效果。

The infraed sensors located on both sides of the front plates at the entrance and exit are able to conduct real time detection for the approaching passenfers and communicate with the controlling PC to automatically activate the escalator (or moving walk) and after the passenger leaves, it can be automatically stopped, reaching the most optimized energy-saving effects.



## 扶手照明

Handrail illumination

扶手照明安装在扶手支架内,柔和的光线为运行中的自动扶梯增添了几分灵气。

The handrail illumination has been installed in the handrail support. The gentle light adds charm to the unning escalator.



## 斜扶手(适用于交通型扶梯)

Inclined handrail (It is applicable for public traffic type escalators)

采用不锈钢封闭试斜扶手扶梯,适合于人流量大,承载重的公共交通运输场所。能最大程度地扩展乘梯空间,提高在人流量较大时的有效安全系数。

The stainless steel enclosed and inclined handrail fits for occasions with large stream of people and heavy loading. It can extend the riding space to the greatest extent and increase the effective safety coefficient.



## 加热装置

Heating device

上部安装在上机房主机边,主要对上部机房进行加热,中部安装在扶梯中部,下部安装在下机房,主要对整个梯路进行加热。

Each escalator usually installs three heating devices, one is beside the host in the upper machine room, it mainly heats the host, the second is installed in the mid escalator, and the third is in the lower part, it mainly heats the whole escalator.



## 运行方向指示

Running direction indication

运行方向和禁行显示标识采用新颖的长圆结构,置于扶梯出入口内盖板上,简洁大方,便于 观看扶梯的运行或禁行指示,确保乘客安全自如地乘坐。

The direction and forbidding the use of novel display identifies a long circular structure, placed inside the cover on the escalator entrance, simple and elegant, easy to watch the operation of the escalator or the forbidden line instructions to ensure the safety of passengers the freedom to ride.

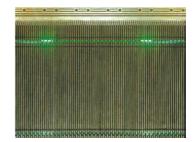


## 登梯照明

Illumination for the passengers

绿色荧光柔和的地从上 / 下端部相邻两节梯级(踏板)的啮合齿口中照射出,以提醒乘客注意梯级进出水平段,提高乘梯安全。

Green light softly beams out from the space between the engaged teeth of the two neighboring steps to remind the passengers to be aware of the level sections both at the entrance and exit, resulting in increased security for the passengers.



#### 围裙板刷

Skirting brush

安装于围裙板两侧位于梯级上面的围裙板刷以避免乘客的鞋子碰擦围裙板和能有效地防止异物被带入梯级。

The skirt brush,which installs on both sides of the skirt panel and above the step,can prevent the passengers' shoes from touching the skirt panel. Meanwhile,it can safely and effectively avoid the foreign matters from being taken into the gap between the step and skirt.



## 滚动内置梯级链

Step chain inside the roller

滚轮内置于专门设计的滚轴梯级链,能有效实现降低驱动运行时的噪音,使运行更加平稳和 宁静。

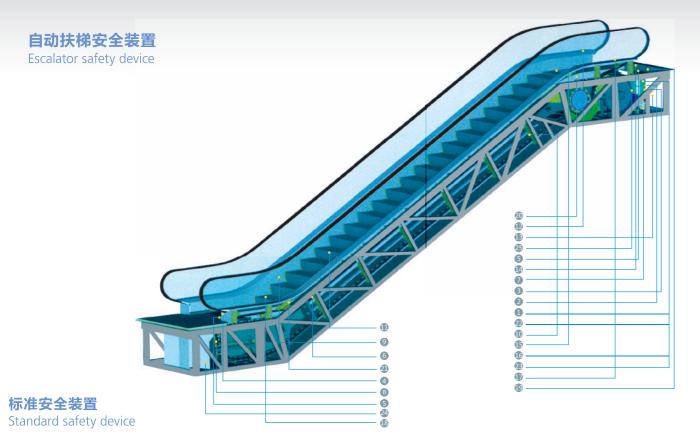
The roller has been internally installed in the specially-designed roller step chain. It can effectively Fulfill the reduction of the noise during the driving process and bring about a more smooth and quiet operation.



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# SHANGHAI MIDDIAMOND ELEVATOR 安全装置 2010年上海世博会上海中菱的服务 Safety device





## 1. 缺相、错相保护 Lack of phase, error phase protection

如果发生缺相或错相,自动扶梯(自动人行道)将自动停止运行。 If lack phase or error phase has been checken out, the escalator (auto-walk) will automatically stop the operation.

## 2. 马达超载保护 Motor over-load protection

电流超过额定电流的 15% 则自动扶梯(自动人行道)自动停止运行。 When the current exceeds 15% of the current tating, the escalator (auto-walk) will automatically stop the operation.

#### 3. 电器回路保护 Electrical appliance loop protection

提供自动电路断开装置以保护自动扶梯(自动人行道)的电路和电气部件。 It offers the automatic circuit disconnecting device to protect the circuit and mains components of the escalator (auto-walk).

## 4. 扶手带入口保护 Handrail inlet protection

当外物被夹在扶手带入口处时,自动扶梯(自动人行道)会自动停止运行。 When some foreign substance has been clipped in the handrail inlet, the escalator (auto-walk) will automatically atop the operation.

#### 5. 梳齿板安全保护装置 Comb plate safety device

当外物被夹在梳齿时,自动扶梯(自动人行道)将自动停止运行。 When some foreign substance has been clipped in or between the combs, the escalator (auto-walk) will automatically atop the operation.

#### 6. 梯级塌陷保护装置 Step sagging protection device

当发现梯级有异常的塌陷时,自动扶梯(自动人行道)会在梯级进入梳齿

When there is abnormal step bending, the escalator (auto-walk) will stop the operation before the step entering into the comb plate.

#### 7. 驱动链断裂保护 Broken drive-chain safety device

当驱动链被过度拉伸或断裂时,自动扶梯(自动人行道)将自动停止运动。 When the drive-chain has been over-stretched or it is broken, the escalator (auto-walk) will automatically stop the operation.

## 8. 梯级链断裂保护 Broken step chain protection

当梯级(踏板)链被过度拉伸或断裂,自动扶梯(自动人行道)将自动停 止运行。

When the step (pallet) chain has been over-stretched or it is broken, the escalator (auto-walk) will automatically stop the operation.

#### 9. 超速保护 Over-speed protection

当自动扶梯(自动人行道)超速运行时,将自动停止运行。

When there is over-speed to the escalator (auto-walk), it will automatically stop the operation

#### 10. 非操作逆转保护 Direction reversal protection

当逆转运行而违反了预定的运行方向,自动扶梯(自动人行道)将自动停

When it comes the unintentional reversal of the direction of travel, the escalator (auto-walk), will automatically stop the operation.

## 11. 警界线 Security line

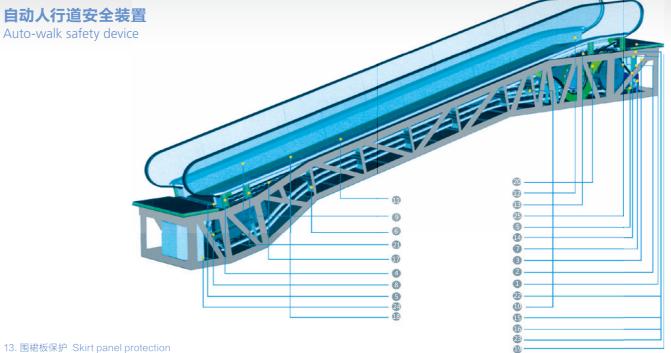
黄色合成树脂警界线位于自动扶梯踏板的前部和两边,以防止乘客踏入相 邻梯级的边缘及梯级和围裙板之间,在梯级两边的警界线高于踏板表面(自 动人行道提供可选黄色喷漆警界线)

The yellow synthetic resin security line is located in the front position and two sides of the escalator tread so that the passengers will not tread in-between the edge of the adjacent step and the lift group lengthened skirt panel, The security line on both sides of the step is higher than tread surface, (The autowalk offers the selective yellow spray-painted security line.)

## 12. 紧急停止按钮 Emergency button

当按下该按钮时,自动扶梯(自动人行道)将停止运行。

When the button has been pressed down, the escalator (auto-walk), will stop



#### 13. 围裙板保护 Skirt panel protection

当外物被夹在围裙板和梯级之间时,自动扶梯(自动人行道)将自动停止

When some foreign substance has been clipped in between the skirt panel and the step, the escalator (auto-walk) will automatically stop the operation.

#### 14. 制动器保护 Brake protection

当电力不足或任一安全装置动作时,制动装置将通过弹簧弹力作用使制动 功能生效,使自动扶梯(自动人行道)停止运行。

When the electric force falls short of supply or it acts any of the safety device, the brake function goes into effect by the safety device through the spring resilience action, In this way, the escalator (auto-walk) stops the operation.

#### 15. 检修盒安全开关 Safety inspection switch

检修保养时,防止自动扶梯(自动人行道)启动的安全装置。

It is a safety device to prevent from the escalator (auto-walk) starting during

## 16. 警界灯 Warning lights

自动扶梯(自动人行道)上下端,梯级下部装有照明以提醒乘梯人注意安全。 Illumination exists in the upper and lower ends of the escalator (auto-walk), in the lower part of the step in order to remind the passengers of the security matters.

#### 17. 启动警铃装置 Alarm bell starting device

自动扶梯(自动人行道)启动时警铃响起,以提醒乘客安全。

The alarm bell rings when it starts the escalator (auto-walk) in order to remind the passengers of the security matters.

## 18. 扶手带断带保护装置 Control device for handrail breakage

当扶手带断裂时,自动扶梯(自动人行道)将停止运行。 When the handrail is broken, the escalator (auto-walk) will automatically stop

the operation.

## 19. 梯级踏板缺失监测装置 Step&pallet missing protection

在正常运行条件下,当检测到梯级或踏板缺失时,自动扶梯(自动人行道) 将停止运行,故障排除并且手动复位后才能再启动。

检修状态时不检测梯级踏板缺失

Under normal mode, when detect the missing of step or pallet, the escalator (auto-walk) will stop working.

When its under inspection mode, not detecting.

## 20. 扶手带速度监控功能 Handrail speed monitor

在正常运行条件下,当扶手带运行速度偏离梯级踏板或胶带的实际速度 大于-15% 且持续时间大于15秒时,自动扶梯(自动人行道)将停止

检修状态时不检测扶手带速度。

Under normal mode, when the handrail deviation of more than -15% to the actual speed for more than 15s. the escalator (auto-walk) will stop working. When its under inspection mode, not detecting

#### 21. 盖板打开检测装置 Floor plate open protection

在正常运行条件下, 当检修盖板打开时, 该检测开关动作, 安全回路断开, 自动扶梯(自动人行道)正常状态时不能运行。

当检修状态时,该检测开关将由手持检修盒上的停止开关替代。 Under normal mode, when the floor plate is open, the escalator (auto-walk)

When its under inspection mode, this switch will be instead by the stop botton on the manual controller.

## 22. 主机抱闸打开检测功能 Motor brake lifting detecting

自动扶梯(自动人行道)启动后,检测主机抱闸是否打开(释放),如 果没有打开,扶梯或人行道将停止运行,故障排除并且手动复位后才能

After starting the escalator (auto-walk), if there is non-lifting of the brake system, escalator &moving walk will stop working.

## 23. 主机手动盘车装置检测开关 Motor hand winding device protection

当打开自动扶梯(自动人行道)主机防护罩进行手动盘车时,检测开关 动作切断安全回路,自动扶梯(自动人行道)将不能运行。

When the hand winding device is used in the motor, the escalator (auto-walk) and moving walk with stop working.

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#### 24. 围裙板防夹装置 (裙板毛刷) Skirting brush

该装置应符合 GB16899-2011 第 5.5.3.4 条的规定。 Should follow GB16899-2011no, 5.5.3.4 rules.

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## 可选用的安全装置

Optional safety device

#### 25. 附加制动器 Auxiliary brake

驱动链断裂或制动失灵防止自动扶梯(自动人行道)下滑确保人员安全(公共型或 H>6m 时必须配备)

It prevents from the escalator (auto-walk) slide and ensures the buman security in case of the drive chain breakge or the out-of-order of the brake, (It should be allocated with the emergency brake H> 6m.)

# 26. 梳齿照明 Comb illumination

照明被安装在靠近梳齿板旁的围裙板上,为梯级和梳齿板提供照明以方便 乘客安全的乘坐自动扶梯。

The illumination has been installed in the skirt panel near the comb plate, It offers the lighting for the step and the comb plate, It is more convenient for the passengers to up and down the escalator.

## 27. 变频功能 Conversion function

可采用变频驱动或自启动方式实现节能。

It can adopt variable frequency control or the automatic starting mode to fulfill the energy-saving.

#### 28. 加热装置 Heating device

上部安装在上机房主机边,主要对上部机房进行加热,中部安装在扶梯中部,下部安装在下机房,主要对整个梯路进行加热。

Each escalator usually installs three heating devices, One is beside the host in the upper machine room, It mainly heats the host, The second is installed in the mid escalator, And the third is in the lower part, It mainly heats the whole escalator.

#### 29. 消防联动 Fire linkage

当该装置作用时,可停止自动扶梯(自动人行道)运行,装置位于自动扶 梯(自动人行道)附近。

When this device comes into action, it can stop the escalator (Passenger conveyor) operation. It is installed near the escalator (Passenger conveyor).

#### 30.下部机房排水 Lower machine room drain

当下部机房进水超过标准时,自动排水系统运行。(室外型) When it exceeds the standard water level in the lower machine room, the automatic drain system will start accordingly.(outdoor type)



## 静电保护

消除梯级(踏板)在运行产生的静电

## Static electricity protection

Remove static electricity raised from running of steps

#### 急停保护

当需要紧急停车时,按下急停开关起保护

### **Emergency stop button**

Push the emergency stop button to stop the escalator/passenger conveyor

## 围裙保护

当异物夹入梯级(踏板)与围裙之间起保护

# Skirting protection

Protection against risk of foreign matters being jammed into clearance between steps and skirting

#### 扶手入口安全保护

当扶手入口有异物夹住时起保护

#### Handrail entry safety protection

Protection against risk of foreign matters being jammed into handrail entry

#### 驱动连接保护

当驱动链断裂或过长时起保护

#### Main drive chains safety protection

Protection against risk of drive chains being breakage or over long

## 超速保护

当运行速度高于额定速度的 20% 时起作用

## Over-speed protection

Protection against risk of speed being over 20% of rated speed

## 欠速保护

当运行速度低于额定速度的80%时起作用

## **Under-speed protection**

Protection against risk of speed less than 80% of rated speed

### 非操作逆转保护

当梯级和扶手带的运行方向和指定方向相反时起保护

## **Un-intentional reversal protection**

Protection against risk of unintentional reversal protection

## 缺、错相保护

当动力电源缺相或错相时起保护

#### Lack of phase, error phase protection

Protection against risk of phase failure

#### 短路保护

当电气回路短路时起保护

#### **Short circuit protection**

Protection against risk of short circuit

## 过载保护

当电机持续过载时起保护

## Over-load protection

Protection against risk of motor continually over-load

## 梯级(踏板)下陷保护

当梯级(踏板)损坏而下陷时起保护

# Step sagging protection

Protection against risk of steps being breakage and sagging

## 梯级(踏板)链断保护

当梯级(踏板)链断裂或过长时起保护

## Step chains safety protection

Protection against risk of step chains being breakage or over long

## 梳齿安全保护

当异物夹入梳齿时起保护

## Comb safety guard

Protection against risk of foreign matters being trapped into comb teeth of step(pallet)

08

# 可行布置方案

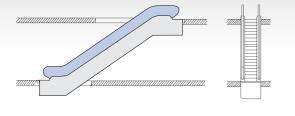
Arrangements planning guide

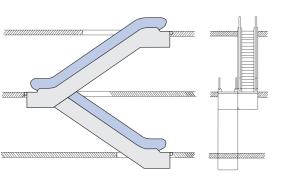
SHANGHAI MIDDIAMOND ELEVATOR

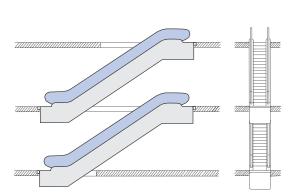
# 土建安装须知

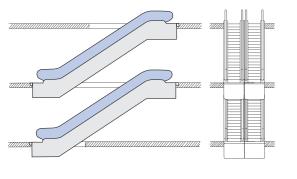
Installation notice

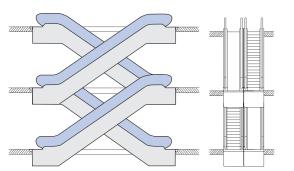












## 单台扶梯

Single unit arrangement

采用单台扶梯连接两个层面。它适合客流量主要朝一个方向流动的大楼。可作灵活的调整以满足乘客流动的需要(例如:早晨上行,晚上下行)。particularly suitable for transporting passengers between two floor levels,where passenger flow is in one direction,althoughon-demand starting can be utilized to allow travel in both two directions,(e,g,up in the morning and down in the evening)

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## 连续布置式(单向交通)

Continuous arrangement(one travel direction )

这种布置方式主要用于小型百货商店,以连续三个销售楼层。这种布置比 断续布置所需要的空间更多一些。

Mainly suitable for small department stores, between three sales floor levels, More space required than the interrupted arrangement.

# 断续布置式(单向交通)

Interrupted arrangement(one trauel direction)

这种布置多少会给乘客带来不便,但对商场业主却有利,因为在上行或下行扶梯间以及换乘扶梯间的空间间隔有可能让顾客看到特意布置的广告展品。Passengers have to make a short detour to the next escalator, strategically placed displays alongside the route of this detour can help to increase sales by encouraging impulse buying

## 平行断续布置式(双向交通)

Multi-level parallel arrangement (interrupted traffic, two travel directions)

这种布置方式主要使用于客流量较大的商场和公交设施。当有三台或三台 以上自动扶梯时,就应有可能按照客流改变运动方向。这种布置方式比较经济, 因为这样无需内侧挡板。

Mainly used in department stores and public buildings with a heavy traffic flow, When there are three or more escalators, the possibility to reverse the direction of travel of both escalators depending on the usage or traffic flow, this arrangement is economical, since no decorative truss cladding required.

# 交叉连续布置式(双向交通)

Multi-level criss -cross arrangement (continuous traffic flow, two travel directions)

这种布置方式主要使用于大型百货商场、公共建筑和公共交通场所,这些地方的楼层之间的运送次数应保持尽可能地少。

Mainly used in major department stores, public buildings and public transport buildings, reduce congestion at the landing area by separating upwards and downwards travelling passengers.

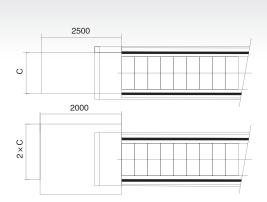
## 除了确保合同土建的各尺寸和要求, 以下的要求也应达到。

Besides complying with the drawing of the contract, attention should also be drawn to the following.

为了确保扶梯和人行道的使用安全,自由空间必须在各层站处提供足够大的空间。(参见右最小尺寸图)

To ensure the safety of the escalator and moving walk, free space should be large enough in the landing area. (See the minimum size on right)

C = 扶手带中心宽度 C = handrail belt width



## 顶空安全距离

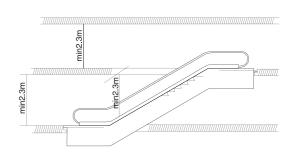
Vertical safety distance

在梯级/踏板上的任意点上,至少有2.3米不受任何障碍的安全距离。

特别注意!如果一台扶梯上的另一台扶梯的提升高度 < 3.3 米,就不可能达到 2.3 米的顶空安全距离。

There should be at least 2.3m upside safety distance starting upward from the step board.

Notice: If the vertical rise of one escalator, which is installed above another one, is lsee than 3.3m, the upside safety distance can not reach 2.3m.



## 扶梯(人行道)安装必须保证的水平安全问题

Escalator installation must ensure that the level of security

扶手带外边缘至墙体或其他障碍物的水平安全距离必须大于80mm。

梯级/踏板区上方垂直安全距离必须大于2.3m。

扶手带区上方垂直安全距离必须大于 2.1m。

对楼面开孔或扶梯 / 人行道交叉布置,扶手带中心到障碍物的水平安全距离必须大于 0.5 m。

如未达到要求,需设置专门的防护装置和防撞挡板。

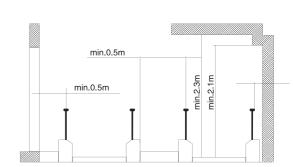
The horizontal distance between the handrail edge and the wall or other objects should be more than 80mm.

The vertical distance above the step board should be more than 2.3m.

The vertical distance above the handrail space should be more than 2.1m.

In case of floor spaces or the cross layout of escalators and moving walk, the safety distance between the handrail center and the object should be more than 0.5m.

If the above-mentioned requirements cannot be met, a special protection device and a bumper rail should be sued.



# 30° 自动扶梯土建参数

30° escalators parameter construction layout 2010年上海世博会上海中菱的服务

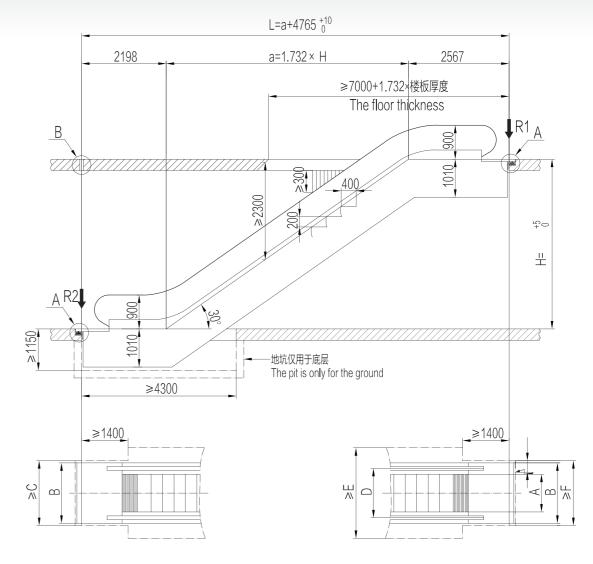


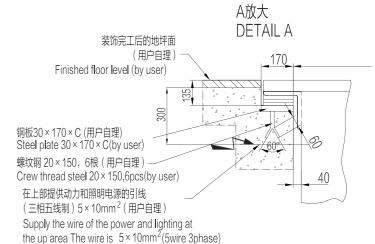
<u></u> 型号	提升高度 Vertical rise	重量 Net weight	支撑负载 Reactions R1	支撑负载 Reactions R2	功率 Motor pauer	支撑负载 Transport dimensions	
Туре	mm	KN	KN	KN	KŴ	h	i
	3000	57	46	41		2750	10900
	3500	60	49	44		2780	11890
	4000	64	52	47	5.5	2810	12880
MDWE-600 (4500man/hour)	4500	68	56	50		2830	13870
(10001110111110011)	5000	71	59	53		2840	14860
	5500	75	62	56	8	2860	15860
	6000	79	65	59	8	2870	16850
	3000	59	52	47	5.5	2750	10900
	3500	63	56	50	5.5	2780	11890
	4000	67	60	54		2810	12880
MDWE-800 (6750man/hour)	4500	71	64	57	8	2830	13870
(,	5000	74	68	60	0	2840	14860
	5500	82	74	66		2860	15860
	6000	86	78	69	11	2870	16850
	3000	63	59	53	5.5	2750	10900
	3500	67	61	57		2780	11890
	4000	71	68	61	8	2810	12880
MDWE-1000 (9000man/hour)	4500	75	73	65		2830	13870
(	5000	83	79	71		2840	14860
	5500	87	84	75	11	2860	15860
	6000	92	88	79		2870	16850

备注:提升高度最高能满足≤ 10.44M

# 标准规格及尺寸 Standard specification and dimension

型号 Type		MDWE-600	MDWE-800	MDWE-1000
梯级宽度 Step Wide	А	600	800	1000
装饰宽度 Outside Cladding	В	1200	1400	1600
土建开口宽度 Construction Layout Opening Width	С	1260	1460	1660
扶手间距 Handrail Spacer	D	838	1038	1238
土建开口宽度 Construction Layout Opening Width	E	1838	2038	2238
土建开口宽度 Construction Layout Opening Width	F	1260	1460	1660





# 35° 自动扶梯土建参数

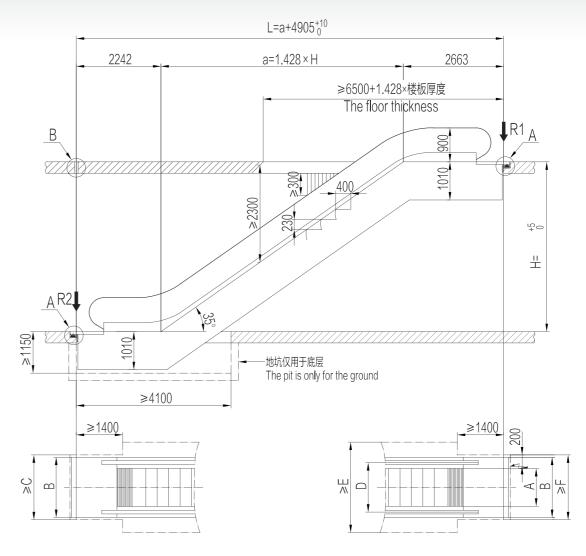
35° escalators parameter construction layout 2010年上海世博会上海中菱的服务

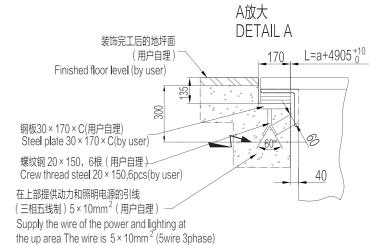


型号	提升高度 Vertical rise	重量 Net weight	支撑负载 Reactions R1	支撑负载 Reactions R2	功率 Motor pauer	支撑负载 Transport dimensions	
Туре	mm	KN	KN	KN	KŴ	h	i
	3000	54	43	39		2850	10180
	3500	57	46	41		2890	11030
	4000	60	49	44	5.5	2920	11890
MDWE-600 (4500man/hour)	4500	64	52	46	5.5	2940	12750
(1000man/modr)	5000	67	54	49		2970	13610
	5500	70	57	51		2980	14470
	6000	73	60	54	8	3000	15330
	3000	56	49	44	5.5	2850	10180
	3500	60	52	47		2890	11030
	4000	63	56	50		2920	11890
MDWE-800 (6750man/hour)	4500	66	59	53		2940	12750
(0,00,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5000	70	62	56	8	2970	13610
	5500	73	65	59	0	2980	14470
	6000	76	69	61		3000	15330
	3000	60	56	50	5.5	2850	10180
	3500	64	60	53		2890	11030
	4000	67	64	57	8	2920	11890
MDWE-1000 (9000man/hour)	4500	71	67	60	O	2940	12750
(	5000	74	71	64		2970	13610
	5500	82	77	69	11	2980	14470
	6000	85	81	72	11	3000	15330

# 标准规格及尺寸 Standard specification and dimension

型号 Type		MDWE-600	MDWE-800	MDWE-1000
梯级宽度 Step Wide	А	600	800	1000
装饰宽度 Outside Cladding	В	1200	1400	1600
土建开口宽度 Construction Layout Opening Width	С	1260	1460	1660
扶手间距 Handrail Spacer	D	838	1038	1238
土建开口宽度 Construction Layout Opening Width	E	1838	2038	2238
土建开口宽度 Construction Layout Opening Width	F	1260	1460	1660





# 自动人行道土建参数

Moving walk parameter construction layout 2010年上海世博会上海中菱的服务



倾斜角 Angle -	提升高度 Rise		中间支撑 Middle supporting		La	Lb	Lc
	自From	至To	R3	R4			
	1297	2178	-	-	-	-	-
10°	2179	4823	1	_	L/2	L/2	_
	4824	6000	1	1	L/3	L/3	L/3
	1449	2420	-	_	_	-	_
11°	2421	5335	1	-	L/2	L/2	-
	5336	6000	1	1	L/3	L/3	L/3
12°	1601	2663	-	-	-	-	-
	2664	5851	1	_	L/2	L/2	_
	5852	6000	1	1	L/3	L/3	L/3

# 支承力 Supporting

无中间支撑 Without middle supporting (kN)	单中间支撑 Middle supporting (kN)	双中间支撑 Double middle supporting (kN)		
R1=L×q+M	R1=La×q+M	R1=La×q+M		
	R2=Lb×q+N	R2=Lb×q+N		
D2-L vatN	R3=(La+Lb) × 1.3 × g	R3=(La+Lc) × 1.3 × q		
R2=L×q+N	K3-(La+Lb) × 1.3 × q	R4=(Lb+Lc) × 1.3 × q		

踏板宽度 Pallets Width	800	1000
А	800	1000
В	1038	1238
С	1400	1600
D	1460	1660
E	2038	2238
F	1400	1600

