#### Syney Electric Group Co., Ltd.

24-Hour Service Hotline

400-826-7608

Web: www.syney.net

Address: No.31 Yangcheng Road, Nanyang Economic Development Area,

Xiaoshan District, Hangzhou, Zhejiang, China.

Address: In Starship Industrial Super Factory, Wujiang Avenue, Fenhu

Hi-Tech Zone, Suzhou, Jiangsu

Japan-Osaka (Office) Tel: 06-6335-9685

Address: 15-9 3F, Nishitenman 5-chome, Kita-ku, Osaka, Japan



#### Attention

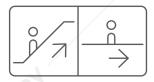
The construction units who are in charge of installation, modernization, repair and regular maintenance must obtain 'Installation, Alteration, Repair & Maintenance License of Special Equipment' and only do corresponding works in accordance with work permission range. Elevator regular maintenance construction units must obtain elevator maintenance permission license.

Personnel requirement: mechanical or electrical engineers, with special equipment operation certificate.

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### **Syney**

# Escalator Moving Walks Series





### **Syney Brand**

1963

Syney Germany was formerly known as Syney Bautechnische Beratung Gmbh founded by Mr. Friedrich Sylvaine and Mr. Hoffman Gaultney in Bonn, North Rhine-Westphalia. To support federal Germany in post-war urban reconstruction and urban planning, Syney was then dedicated to exploring building technology solutions. During the past 60 years, Syney persevered in R&D of advanced technology and has always been a leading player in Europe in fields of elevator technology, building technology and energy saving and optimization technology.

#### 2003

Based on the strategic planning of Chinese market, Syney cooperated with Chinese partner to establish Syney Elevator (Hangzhou) Co., Ltd., committed to providing Chinese customers with solutions to vertical and horizontal people flow transport.

#### 2013

Based on the brand development and overall strategic planning, Syney Technologie (Deutschland) GmbH was officially upgraded to Syney GmbH; furthermore, elevator technology business in Asia-Pacific region got fully transferred to Chinese partner. Syney Elevator (Hangzhou) Co., Ltd. became the legal owner of Syney's all elevator technology patents in China and Syney brand in Asia-Pacific region.

#### Future

Syney is willing to join hands with our partners to explore optimal solutions to passenger transport in and between buildings, provide Chinese customers with the best products, technology and services, and establish new standard of ideal and comfortable living style.

Syney Electric Group Co., Ltd. is a professional elevator company integrating R&D, manufacture, sales, installation and service. With full set of high technologies, Syney specializes in the design and manufacture of many products including passenger elevator, panoramic elevator, Villa elevator, cargo elevator, Car elevator, Hospital elevator, escalator and moving walks, etc. Depending on advanced technologies, modern equipment, standardized management, precise brand positioning and perfect marketing & service network, Syney business keeps steady growth and the sales network extends to the whole country. Syney Electric Group Co., Ltd. has been one of the most competitive elevator companies in China.



50

The products have been exported to over 50 countries and regions in Europe, Asia, Africa and America.



4.6

The registered capital is RMB460 million



99000

Factory covers an area of 99,000 m<sup>2</sup>

### Scope & Requirements

Syney escalators and moving walks series are made of high strength profiles with rigorously advanced technology, adhering to safe, reliable and meticulous design concept, making them the best choice for modern commercial area, airport, large supermarket, shopping center, and city multimodal transportation hub.



#### Smart System, Carrying Large Passenger Flows

Syney adopts microcomputer VVVF technology, dual CPU processors, and multiple safety designs to guarantee smooth and stable running; high strength profiles, which are with strong bearing capacity, to guarantee high transportation efficiency with large passenger flows. Over 20 safety protective devices also ensure a safe and reliable



#### Fine Workmanship, Beautiful and Practical

Special surface treatment enables our product to be anti-skid, anti-oxidation and anti-rust. Detailed appearance design perfectly matches the environment. Flexible and adaptable architectural pattern saves valuable building

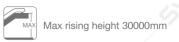


#### Comfortable, Smooth, and Endurable

Ergonomic design makes the start and stop steady and smooth. Big roller handrail belt drive is with little noise. Unique square tube structure is with high stability and longer service live.



Max step width 1400mm





Max transportation capacity 8200p/hour

#### **Escalator Series**

#### Applicable to

- Shopping malls and supermarkets
- City multimodal transportation
- Outdoor scenic spot
- Clubhouse

#### Production Range of Application

- Rising height ≤ 30000mm
- Rated speed ≤ 0.65m/s
- Step width: 600mm\800mm\1000mm
- Inclination angle: 30°、35°、27.3°
- Capacity ≤ 7300P/hour

#### Moving Walks Series

#### Applicable to

- Airport and railway station
- Large scale supermarket
- City multimodal transportation

#### Production Range of Application

- Span length ≤ 105000mm
- Inclination angle ≤ 12°
- Rated speed ≤ 0.75m/s
- Capacity ≤ 8200p/hour
- Step width: 800mm/1000mm (When inclined degree is not more than 6°, step width can be 1200mm/1400mm)



# REASONABLE LAYOUT SCIENTIFIC ARRANGEMENT

# INSTALLATION INSTRUCTIONS

#### **Escalator Step Width**







#### **Escalator Arrangement**

#### Single Arrangement



This arrangement needs little space and installation position can be quite flexible. It can only fulfill transportation of one-way sequent passenger flow, mostly applied to small shopping malls or supermarkets.

#### Parallel Arrangement



This arrangement is applicable to large shopping malls or public transportation areas which are with large passenger flows. It can fulfill transportation of two-way sequent passenger flows. When one-way direction is with much larger passenger flows, you can adjust the running direction to meet any transportation needs.

#### **Scissored Arrangement**



This arrangement is applicable to larger shopping malls and public transportation areas, which can fulfill transportation of two-way sequent passenger flows.

#### **Cross Arrangement**

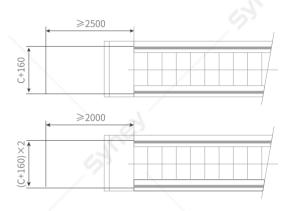


This arrangement can service for two running directions which is widely used at shopping malls and more and more applied to government agencies and public areas. It can obviously reduce transportation time from floor to floor.

#### Notes

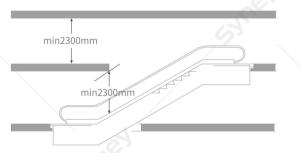
### Beside all the sizes and requirements in the contract and layout, following requirements must be met as well.

- To ensure the safety operation of the escalator and moving walk, free space should be large enough in the landing area (See the minimum size right)
- C-Distance between the outer edge of two handrails.



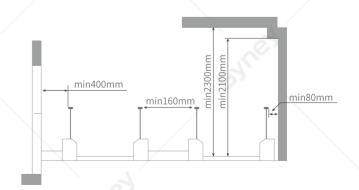
#### Overhead Safety Distance

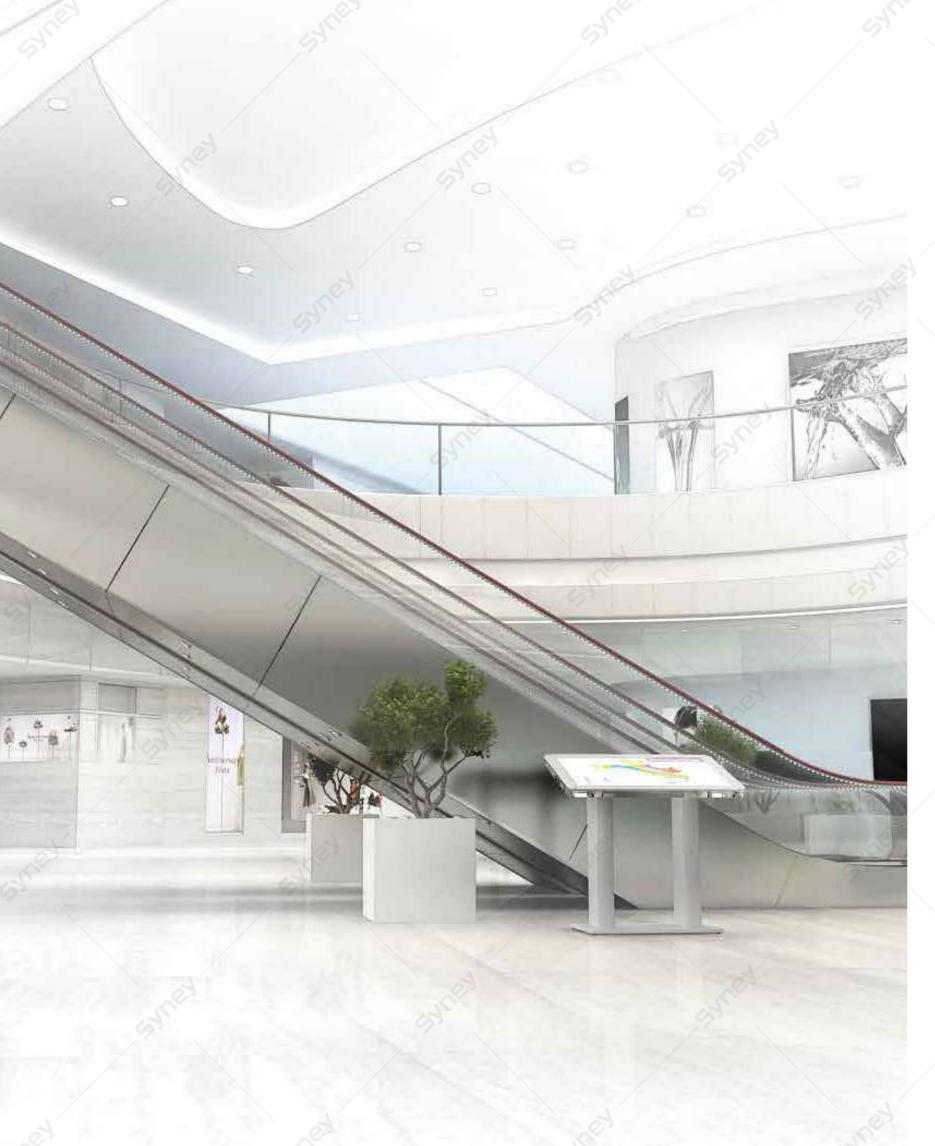
- There should be at least 2.3m safety distance without any barriers from any point on the pallet/step to the overhead.
- If one paralleled escalator right above another one, with rising height less than 3.3m, then it's impossible to meet 2.3m overhead safety distance requirement.



### Horizontal distance that must be guaranteed during escalator / moving walks installation:

- The horizontal distance between handrail edge to walls or other obstacles should be more than 80mm.
- Vertical safety distance above step/pallet should be more than 2300mm
- Vertical safety distance above handrail area should be more than 2100mm.
- Regarding floors with holes or escalator/moving walks with cross arrangement, the horizontal safety distance from handrail distance between the outer edge to obstacles should be more than 400mm.
- If above requirements can't be met, then special protection device and anti-bump guard board should be installed.
- As to details for special protection device and guard board, pls contact with our sales person.





### E100 Commercial Escalator

Syney commercial escalator is designed based on human engineering and aesthetics concepts, which is with luxurious style, full of fashion and aesthetics feeling, being an additional visual view to modern constructions. All-around product varieties and specifications fully meet usage requirements in shopping mall or supermarkets big markets etc.

#### Safety Monitoring System:

Dual 32-bit CPU, two-circuit redundant safety design, and DI input with opto-isolator enables the escalator to be safer.



#### High Precision Worm Gear Reducer:

It can withstand continuously heavy load, enables the elevators to be steadier, with less vibration and noise.



#### High Strength Support Structure:

The sealing welded wide square tube truss is with high rigidity, good symmetry, strong bearing capacity and excellent stability.

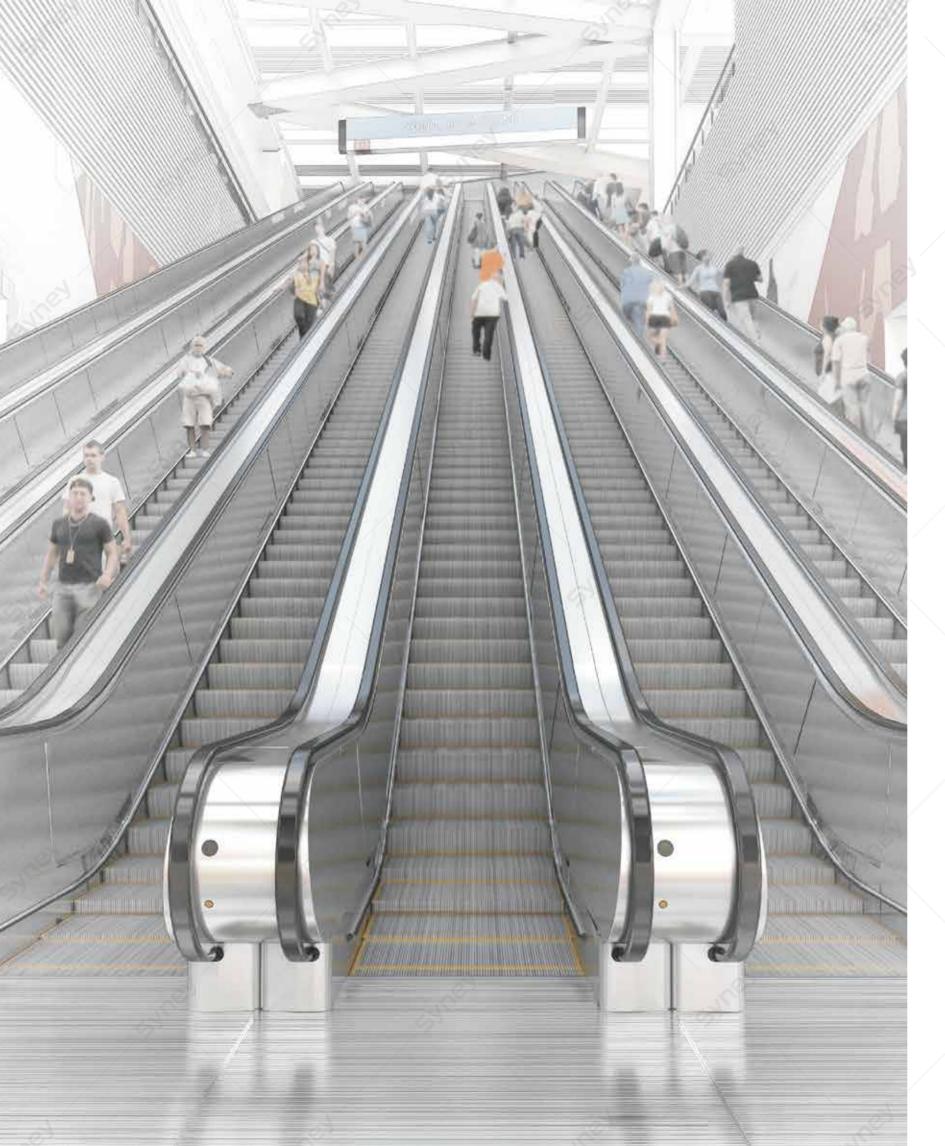


#### Overspeed / Anti-reverse Detection Device:

Dual CPU will synchronously detect the speed, once escalator is detected to be under speed 80%, overspeed 120% or anti-reverse running, control system will stop the escalator immediately.

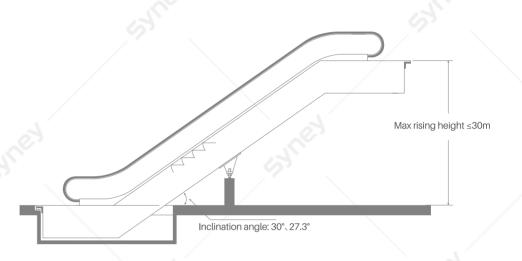


Advanced VVVF speed adjustment technology	Intelligent energy saving control technology	Intelligent control system	Limit mute design	
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### E1300 Public Escalator

Since the living pace of the city becomes faster and faster and people's increasing demands on better transportation environment and comfort, Syney public escalator is designed with leading technology, being safe and reliable, aiming to create modern transportation hubs, which can widely used in public places like metro station, bus station and airport etc.



#### Exquisite Material and Stable Structure:

We use quality guaranteed raw materials, whose performance are stable and with excellent forming effect after welding; use high specification square tube and angle steel, together with thick and solid truss bottom plate to guarantee stable and steady truss structure; equip with advanced infrared calibration technology to improve truss forming quality.

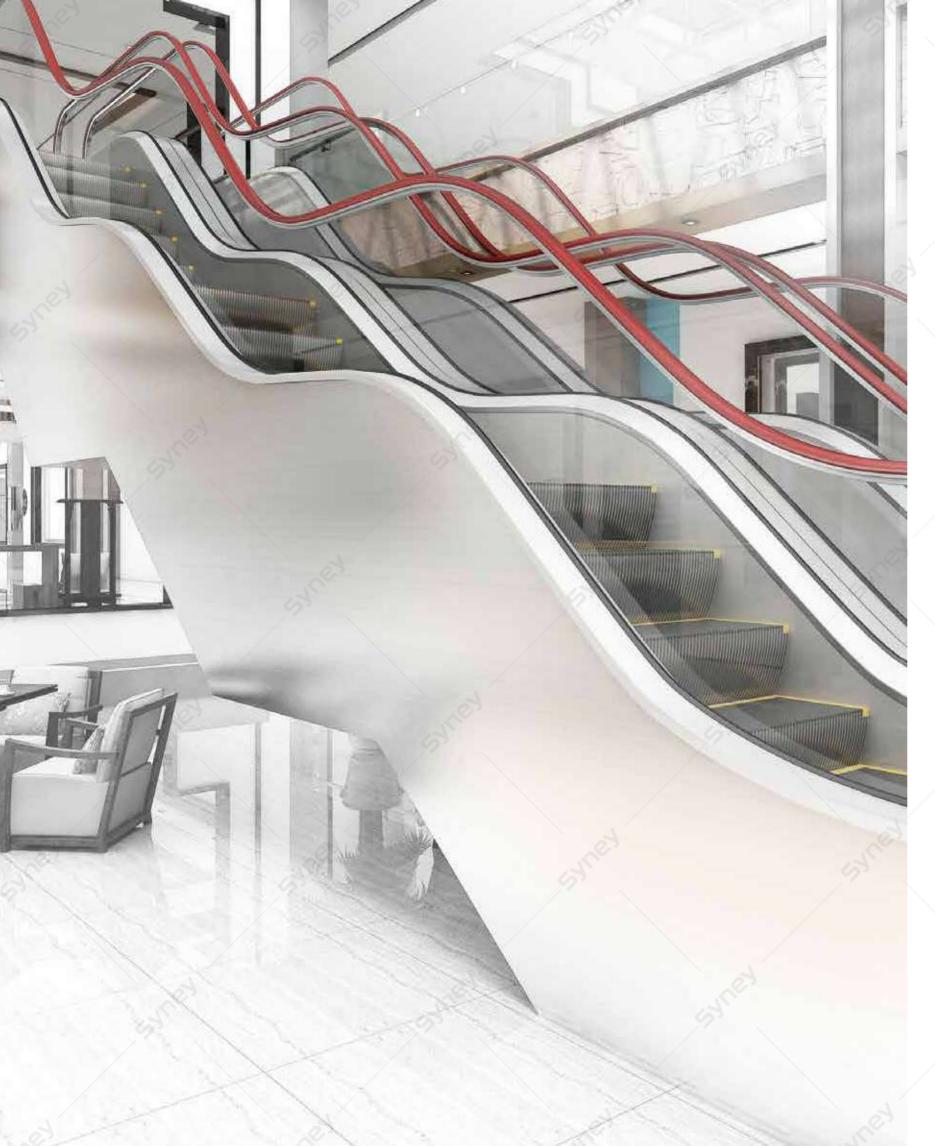
#### European Certification, Perfect Choice:

Our product has passed EN1090 steel structure test, won wide recognition in the European markets, met latest European standards on earthquake and deflection, and already been widely put into use in Germany metro stations.

#### Strong, Stable and Reliable:

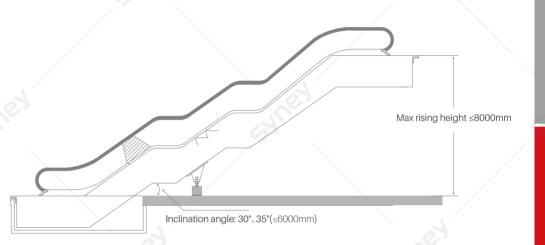
The main drive axle adopts mature and stable structure, uses self-aligning roller bearing, which is with large bearing capacity and long service life; when motor exceeds 120% rotating speed, the control system will take actions and the anti-reverse device will be activated to stop motor from non-maneuverable reversion.

Advanced VVVF speed adjustment technology	Intelligent energy saving control technology	Intelligent control system	Strong performance and limit mute
•	•	•	•
0	0	0	0



### E191 Waving Escalator

Syney waving escalator integrates world leading design concepts, which not only enhance the appearance beauty, outstands in modern construction; but also break through the installation limits of normal escalators, meeting different layout structures needs and widely used in shopping malls and airports etc., being a prefect example showing arts in great integration with technology.



#### Curve Shape, Perfect Option:

E191 waving escalator, with elegant curve shape and multiple waving band designs, perfectly follows construction aesthetics requirements and integrates with your building, which is compatible with each other.

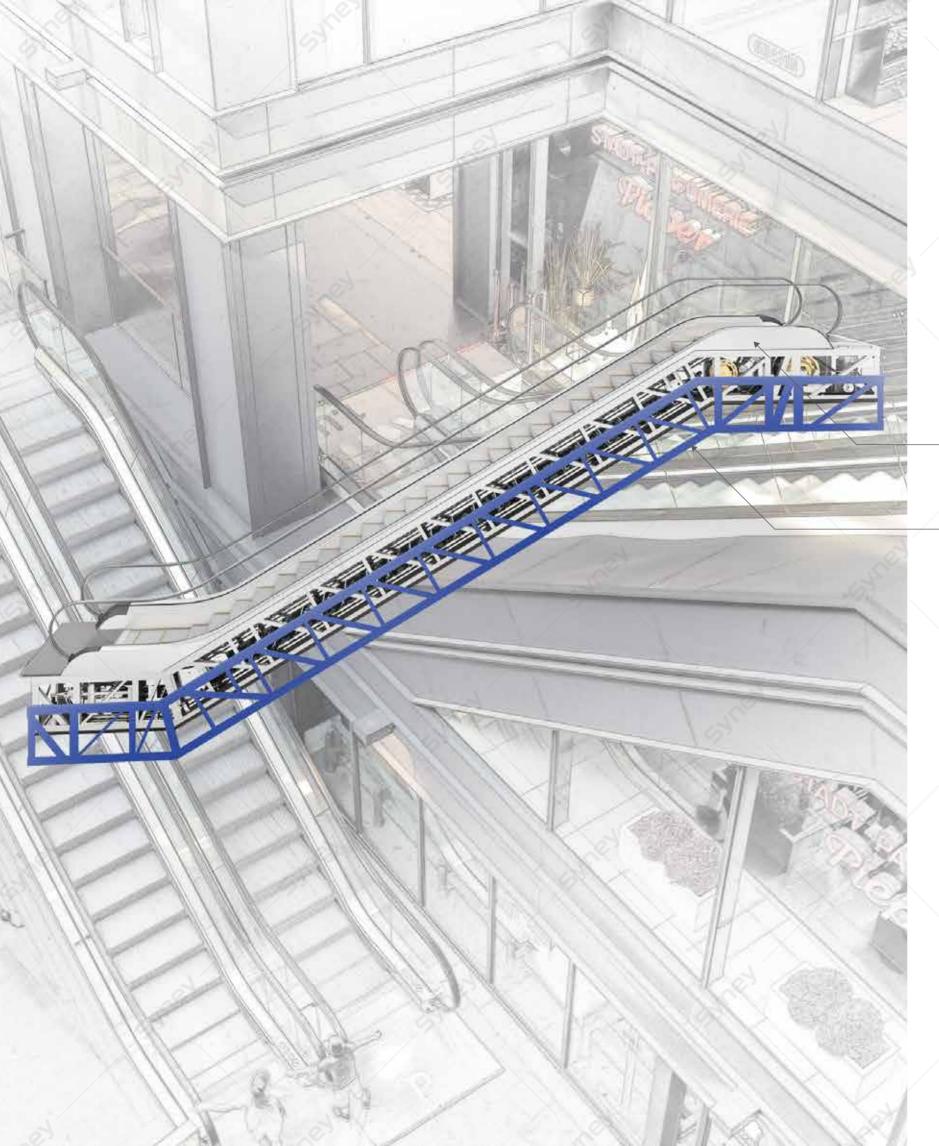
#### Waving Riding, Unique Experience:

Multiple waving band design enables passenger to have a unique riding experience, which differs from normal escalator. It's new, interesting and having a unique style.

#### Multiple Safety Protection Devices:

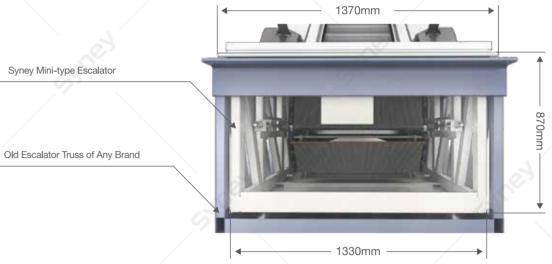
It has over 30 safety protection devices including main circuit broken protection, step chain loosen or broken protection, step sagging and roller broken protection, comb safety protection, handrail entry protection, non-maneuverable reversion protection etc, which guarantee passengers' safety while having a unique riding experience.

ed VVVF speed ent technology	Intelligent energy saving control technology				Intelligent control system			ance
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### Mini-type Escalator

As time goes by, aged escalators in shopping malls, supermarkets, bus station, metro station, airports etc. are facing modernization or obsoleteness. However, the original components and parts needed for modernization is a big headache to most of people. Being dedicated to becoming industry leading escalator modernization solution expert, Syney succeed to develop Mini-type escalator, which can be widely applied to commercial area, shopping malls, office building, and hotel ect., sustainably assists city transportation.



lote:

The Mini-type escalator is directly embedded into the old truss to realize fast switching.

#### Maintain the Original Truss and Decoration:

Syney Mini-type escalator completely solves the problems for aged escalators, like frequently reported faults, high maintenance cost, without destroying original main truss body and surrounding decorations, which enables to make a quick switch from old escalator to a new one.

#### Super Strong Support, Steady and Comfortable:

The mini-type escalator is with smaller comprehensive inclination angle, steadier running, and orderly ups and downs. It also equips with high strength truss support structure and streamline step system guide rail with large turning radius, which is safer and widely recognized and used by international clients. It will be assembled and commissioned in the factory first and then shipped to clients, which uttermost minimizes construction period, and guarantees product quality and smooth and comfortable running conditions.

#### More Time-saving and Economical:

Compact structure and high adaptation save a lot of precious time and cost for clients caused by traditional escalator modernization. Fully adopts advanced manufacturing technology, prolong whole components service life to save running cost. WF drive technology is optional, which can save energy consumption and greatly minimize whole escalator running cost as well.



### **Shopping Cart Escalator**

SYNEY newly developed E-cart shopping cart escalator solves the problem that shopping cart in most commercial areas, supermarkets, and shopping center ect. won't be able to run ups and downs. Shopping cart exclusive usage passageway prevents and eliminates potential safety hazard comparing with normal moving walks that cart goes with passenger, which make shopping easier and more convenient.

#### Entrance Swing Gate:

The gate uses infrared sensor technology. With automatic sensor function, the gate will open automatically, which makes shopping cart in and out more intelligent.



#### Height Limit Rod

The cart is required to be with limited height in order to avoid goods over piled, thus to improve safety.



#### Stainless Steel Balustrade:

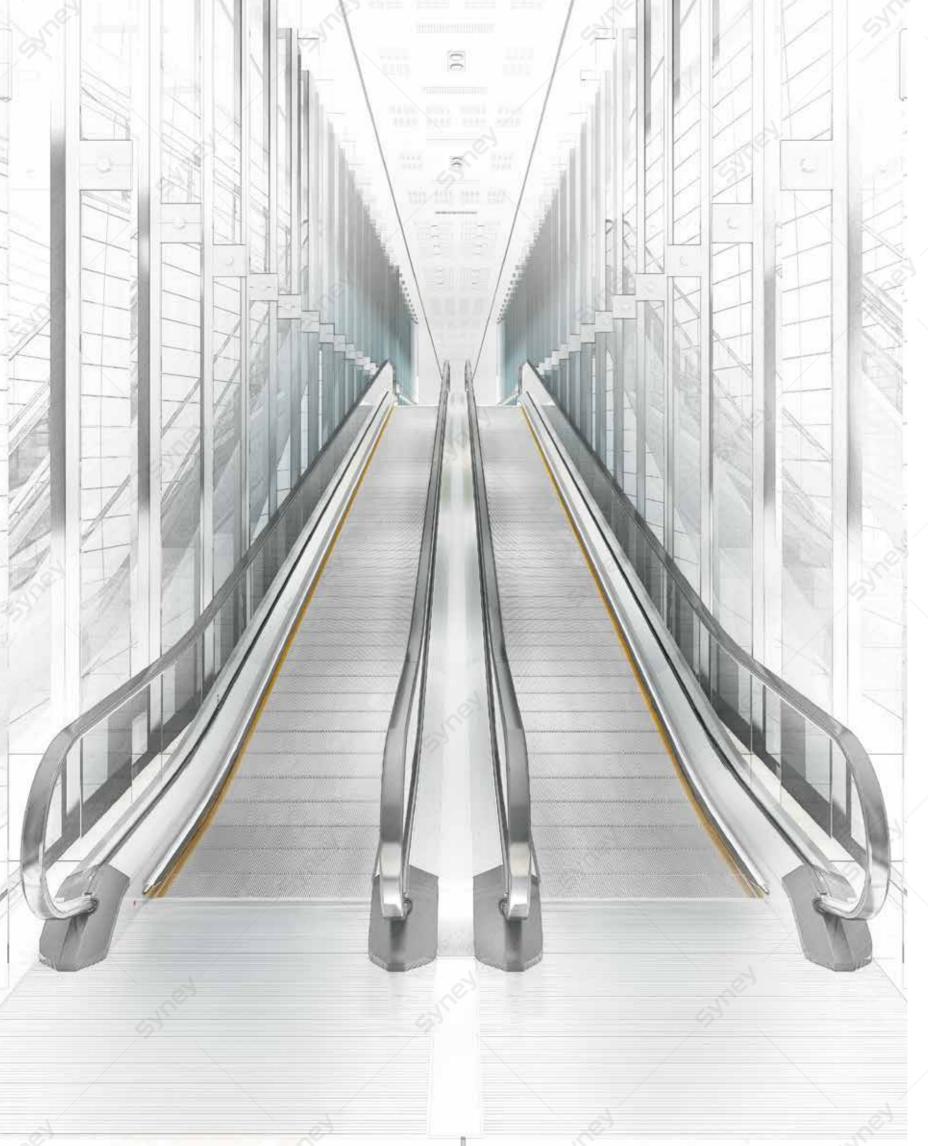
High stainless steel balustrade design is with high anti-corrosion and able to avoid goods falling off cart during transportation.



#### Shopping Cart:

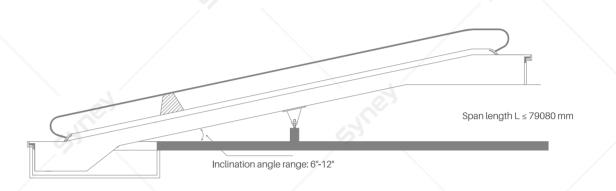
Regular shopping cart with hook and unhook transformation is with lower cost and more convenient to transform.





### M1500 Inclined Moving Walks

Syney inclined moving walks takes shopping and riding to a new simple and comfortable state. It not only satisfies huge passenger flows transportation needs, also meets requirements for long distance walk and transport suitable baggage cart and shopping cart etc., which greatly make travelling and shopping convenient.



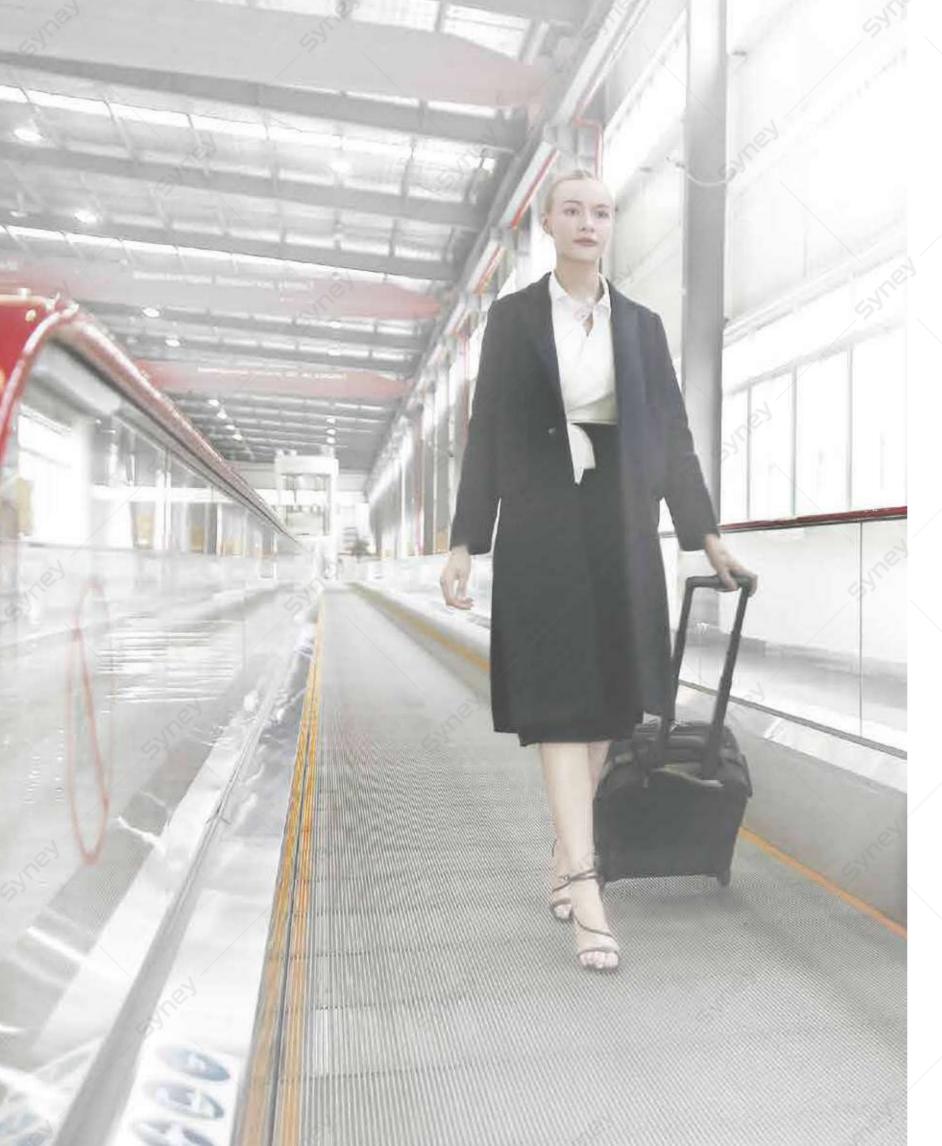
#### Low Noise, Comfortable Riding Experience:

High precision roll-in forming galvanized guide rail, good anti-abrasion PU roller, high strength axled pallet chain, and integrated support plate enable the moving walks to be with higher precision, pallet running more smooth, improve rising comfort and lower running noise.

#### Stable Control, All-round Protection:

We adopt newly developed exclusive usage micro-computer control system, equipped with complete functions, which is able to achieve human-machine exchange, easy maintenance and superior performance. Safety switches are installed at every important parts, real-time monitoring whole moving walks running conditions. If any abnormal running condition is detected, it is able to brake and stop reliably, and shows fault code, which makes maintenance efficient.

Advanced VVVF speed adjustment technology	Integrated aluminum alloy floor plate	Intelligent control system	Perfect matching with cart	
	•	(e)	•	
0	0	0	0	



### M1600 Flat Moving Walks

Syney flat moving walks transport passenger and goods with compact and solid pallets. Its design is more comfortable, steadier and safer. Advanced design concept and manufacturing technology bestows Syney moving walks superior quality including fashionable and outstanding outlook, being grand and luxurious, being safe and reliable, with low energy consumption etc., which enable our moving walks to be widely used in large supermarkets, airport, shopping center, metro station etc.



#### More Space Saving, More Fashionable Outlook:

Adoption of fish-bellied beam short pallet design greatly minimizes horizontal span and makes whole structure to be compact, able to flexibly applied all kinds of construction layouts, saving construction spaces. Various handrail colors and punched patterned floor plate designs make colorful decoration possible, thus to meet different application environment personalization needs.

#### Perfect Riding Experience, Firm Earth Walking Feeling:

Syney flat moving walks adopts unique horizon design, powerful drive and control device, enable passenger to feel no bumps, just like walk on firm earth. Various pallet width are available, which enables to control transport capacity freely.

#### Stable Control, Safe and Reliable:

We adopt excellent stability, strong anti-interference, and superior performance control system, which is easy to operate and free to commission Reliable safety monitoring devices are also equipped, which are small, exquisite, and with high sensitivity, all-round real time guarding safety.

Advanced VVVF speed adjustment technology	Integrated aluminum alloy floor plate	Intelligent control system	Energy saving lighting and lighting reminder
	•		•
0	0	0	0

# SAFETY

We have improved the safety of each series of products so that you can use it at ease every day!









#### Floor Plate Open Protection

When floor plate is opened, floor plate safety switch will be activated into protection function, which will stop



#### **Passenger Detect** Photoelectricity

Auto-start, WF auto-start and VWF low speed modes are available. Passenger detect photoelectricity is used to detect passenger, thus the system can take escalator/moving walks start or stops and doing speed switch etc. control actions accordingly.

#### **Comb Plate Protection**

When unknown objects are into the comb plate, the comb plate will make some backward movement, the inclined block under comb plate will strike the safety switch and activate it. Thus the control system stop the escalator from running.

#### **Entrance and Exit Protection**

If any unknown objects get clamped at handrail entrance or exit, the safety switch will be cut off, and escalator stops from running then.



# E1300 Public Escalator Max step width 1000mm

#### Main Drive Speed Detection

When escalator is under 80% rated speed, the control system will cut off motor power, thus escalator will stop from running.

#### **Drive Chain Broken** Protection

When drive chain is broken or unnecessarily long, it will activate the safety switch immediately and control



#### **Step Missing Protection**

When any step is detected to be missing, the control system will stop the escalator from running.

365 days a year, 20 hours/day

#### **Anti-static Protection**

This device will induct step surface static electricity to ground, avoid passenger feeling shocked when get in touch with static electricity.

#### **Anti-sagging Protection**

When a step or roller is broken, step will sag, and it will activate the safety switch and then control system will stop the escalator from running.

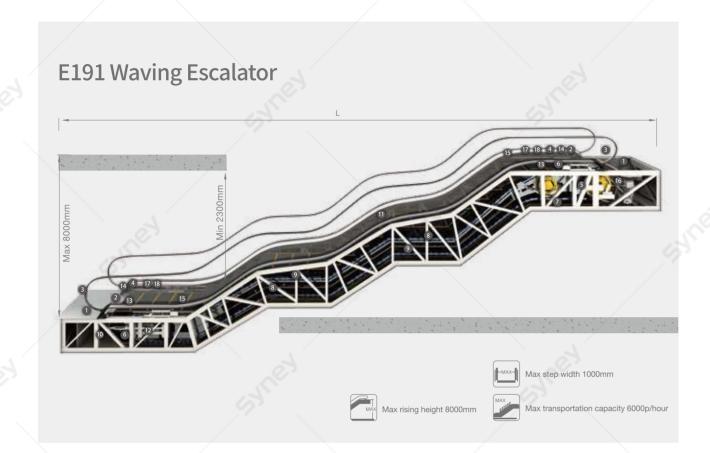
# SAFETY

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#### **Step Chain Broken Protection**

Step chain broken switches are installed at two side of lower machine room.

When step chain is unnecessarily shortened caused by abrasion or other unknown reasons, the safety switch will be activated and cut off safety circuit to stop the



#### **Handrail Speed Detection**

When the handrail speed is not in accordance with the step running speed, the system will automatically detect that and stop the escalator from running.

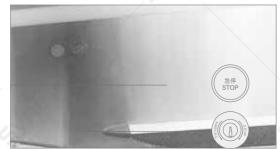
#### **Intermediate Emergency** Stop (Optional)

You can install one emergency stop button at middle part of the escalator.

Thus when there is any emergency situations, you can press the emergency stop button and escalator will be stopped from running.

#### **Terminal Stop**

Emergency stop button is installed at both up and lower terminals. When there is any emergency situations, you can press the emergency stop button and escalator will be stopped from running.



### M1500 Moving Walk



#### Running Direction Light(Optional) (14)

It will show the passenger running direction, thus passenger can subjectively tell if they can go in and choose which side they should go (the one with running direction display means you can go in)



#### **Key Switch Box**

It enables escalator administrator to work on start/upward running/downward running controls.

#### Skirt Panel Protection(Optional)



When unknown objects get clipped between skirt panel and step, the escalator/moving walks will be stopped from running.

#### **Auxiliary Brake** Electromagnet (Optional)



It is used to control auxiliary brake releasing or activating, which can protect passenger when there is any emergent situation.

#### **Fault Display**



When there is any faults, the fault display will show the fault codes to ensure that parts with faults can be precisely noticed, which greatly improve maintenance

### Functions







Standard Optional

Handrail anti-static device

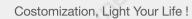
Standard Optional

This device will induct the handrail surface static electricity into ground avoid the electric shock when passengers touch the handrail.

Step chain broken switches are installed at the two sides of lower machine room. When the step chain is abraded or unnecessarily shortened with unknown reason, the safety switches will be activated to cut off the safety ciruit and the escalator stop running.	•	
The device will be activated when power phase dislocation or lack detected, which will make the escalator stop running or unable to start.	•	
If the drive chain is borken or unnecessarily long, it will touch and activate the safety switch, which will cut off the safety circuit and make the escalator stop running.	•	
If any unknown objects get clamped at handrail entry, the switch will be activated to cut off the satety circuit and the escalator stop running.		
Emergency stop buttons are installed at upper and lower ends. Press the energency stop buttons when there is any emergent situation to cut off the safety circuit stop the escalator from running.	•	
When unknown objects are into comb plate, the comb plate will make some movements to front. When moves to a certain distance, the inclined block under comb plate will strike the safety switch and activate it, then the safety circuit will be cut of and the escalator stop running.	•	
When the escalator is changing its set running direction, the control system will make the motor off power, and the escalator will stop running.	•	
The landing plate safety switch will be activated when landing plate is opened, which will cut off the safety circuit and the escalator stop running.	•	
When step is detected to be missing, the control system will stop the escalator from running.	•	
When the handrail speed is not in accordance with step running speed, the system will stop the escalator from running.	•	
when step or roller is broken, it will sag and activate the safety switch, which will cut off the safety circuit and stop the escalator from running.	•	
When the motor current is detected to over the set value, safety switch will be activated, then to stop the escalator from running.	•	
Grounding device is set in control system circuit, which will effectively protect the electrical components from damages and improve the escalator running reliability.	•/	3
when escalator is running at set overspeed or underspeed, the control system will cut off moter power so that the escalator will stop running.	•	
Inspection switches and sockets are installed at upper and lower machine room, which is convenient for the maintenance worker to do their job.	•	
The steps are with yellow demarcation lines at front and sides, leading passengers to safely taking the escalator and improve the safety.	•	
Automatic lubricating system with oil level detection device will stop the escalator to awoid over abrasion.	•	
When the escalator is setting in motion and the brake didn't release, the control system will cut off motor power to stop the escalator form running to protect the machine.	•	
This device will induct the step surface static electricity into ground to avoid the electric shock when passengers touch the steps.		
Adopts economic dual speed running mode according to the passenger flows where the escalators are installed. When there is no passenger, the escalator will automatically change to run at a low speed; once there is a passenger coming up, it will change to normal running speed, which is more efficient and energy-saving.	•)	
When there is ang fault, the fault display will show the fault codes to ensure that parts with fault can be precisely noticed, which can greatly improve maintenance efficiency.	•	
	abräded or unnecessarily shortened with unknown reason, the safety switches will be activated to cut off the safety circuit and the secalator stop running.  The device will be activated when power phase dislocation or lack detected, which will make the escalator stop running or unable to start.  If the drive chain is borken or unnecessarily long, it will touch and activate the safety switch, which will cut off the safety circuit and make the escalator stop running.  If any unknown objects get clamped at handrall entry, the switch will be activated to cut off the safety circuit and the escalator stop running.  Emergency stop buttons are installed at upper and lower ends, Press the energency stop buttons when there is any emergent situation to cut off the safety circuit stop the escalator from running.  When unknown objects are into comb plate, the comb plate will make some movements to front. When moves to a certain distance, the inclined block under comb plate will strike the safety switch and activate it, then the safety circuit will be cut of and the escalator comb plate will strike the safety switch and activate it, then the safety circuit will be cut of and the escalator unning.  When the escalator will stop running.  When the escalator will stop running.  When step is detected to be missing, the control system will stop the escalator from running.  When the handrall speed is not in accordance with step running speed, the system will stop the escalator from running.  When the motor order is broken, it will sag and activate the safety switch will be activated, then to stop the escalator from running.  Grounding device is set in control system circuit, which will effectively protect the electrical components from damages and improve the escalator running reliability.  When the escalator is running at set overspeed or underspeed, the control system will cut off moter power so that the escalator will stop running.  The steps are with yellow demarcation lines at front and sides, leading passengers to safely taki	abriador or unnecessarily shortened with unknown reason, the safety switches will be activated to cut off the safety circuit and the escalator stop running.  The device will be activated when power phase dislocation or lack detected, which will make the escalator or stop running or unable to start.  If the drive chain is borken or unnecessarily long, it will touch and activate the safety switch, which will cut off the safety circuit and make the escalator stop running.  If any unknown objects get clamped at handrail entry, the switch will be activated to cut off the safety circuit and make the escalator stop running.  If any unknown objects get clamped at handrail entry, the switch will be activated to cut off the safety circuit and the escalator stop running.  If any unknown objects get clamped at handrail entry, the switch will be activated to cut off the safety circuit and the escalator stop prunning.  When unknown objects are into comb plate, the comb plate will make some movements to front. When there is any emergent situation to cut off the safety circuit stop the escalator from running.  When the escalator is changing its set running direction, the control system will make the motor off powers, and the escalator is changing its set running direction, the control system will make the motor off powers, and the escalator will stop running.  When step is detected to be missing, the control system will stop the escalator from running.  When step is detected to be missing, the control system will stop the escalator from running.  When the handrail speed is not in accordance with step running speed, the system will stop the escalator from running.  When the handrail speed is not in accordance with step running speed, the system will cut off the safety circuit and stop the escalator from running.  When the motor current is detected to over the set value, safety switch will be activated, then to stop the escalator from running.  Grounding device is set in control system circuit, which will effectively protect the

device			
Start-up alarm	When the escalator is setting in motion, the start-up alarm will ring to warn the passengers to keep eye on their safety.	•	
Working brake	It's main device to brake the escalator. When the escalator is setting in motion, the motor brake will release and escalator runs at normal conditions. When escalator stops, the working brake will the power off and activated and thus escalator stops running.	•	
Machine room protection plate	Protection plate is used to separate moving parts area and static parts area at upper and lower machine rooms to ensure maintenance workers' safety.	•	
Machine flywheel guard opening monitoring switch	When use handwheel device, control system will make the motor power off, enable to start up in order to keep maintenance workers' safety.	•	
land wheel protection	Protection cover is installed on machine hand wheel flywheel to keep workers from damages.	•	
Main power switch	Main power switch is installed above the controller, which is convenient for the maintenance workers to cut off the power once enter into the machine room.	•	
Portable lighting	Protable lighting is equipment, which can be convenient for the maintenance workers to get access to lights.	•	
Safety alarm signs	Safety alarm signs are installed at upper and lower ends according to relevant standards to warm passengers to keep an eye on safety.		
kirt panel anti-clamp device noving walk optional)	When passenger stand at the edges of the step, they will touch the brush. It will remind them to stand at the middle of the step to avoid their cloths getting clamped into the gaps between steps and skirt panel.	•	
Vater level safety switch (outdoor)	When there is water into escalator or the water level reaches alarm line, the water level safety switch will be activated and cut off the safety circuit, and then the escalator will stop running.	•	
Oil/water separator outdoor)	The oil and water will be separated via the oil/water separator. The water will be vented and oil regularly cleaned, which is environmentally friendly.	•	
Step gap illumination	Install green lighting below the steps at upper and lower ends, which improve the brightness at entrance and exit, leading passengers to safely taking the escalators.		
Auxiliary brake	The auxiliary brake will be put into use when the working brake is not working or drive chain broken, which effcetively slowly stop the downward running escalator and finally keep static to ensure passenger' safety.		0
Handrail broken brotection device	When the handrail is broken during escalator running, the handrail broken protection switch will be activated and cut off the safety circuit, and then the escalator will be stopped.		0
Skirt panel protection levice	When unknown objects are into the gaps between steps and skirt panel, the skirt panel will be out of shape. When deformed to certain position, it will strike the safety switch and activate it, then the safety circuit will be cut off and the escalator stop running.		0
VVVF auto-start	Adopts smart running mode according to the passenger flows where the escalators are installed. When there is no passenger, the escalator will automatically change to run at a low speed and then stops; once there is a passenger coming up, it will automatically start up, and quickly chiange to normal speed running, which is smarter, more efficient and energy-saving.		0
Comb lighting	The comb lighting is installed on the skirt panel beside the comb plate, offering lighting to step and comb plate, which help passengers safely take the escalator.		0
Handrail lighting	Lighting is installed at upper part of handrail balustrade, which delivers more enjoyments and safety.		0
Skirt panel lighting	Lighting is installed at skirt panel, which delivers more enjoyments and safety.		0
Heating device	Heating devices installed inside the escalator is mainly used to heat machine, control system, step route, comb plate and handrail ect. to avoid components frozen situations, which is suitable for public escalators at northern cold areas.		0
/			

### **DECORATION**















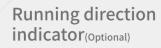


Silver grey Blue

Step



Aluminum alloy (Optional) Black stainless steel (Standard)





When balustrade is glass

#### Comb lighting (Optional)

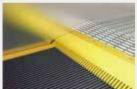


White LED



Green LED

Comb





Yellow synthetic resin Aluminum alloy

Outer cladding decoration (Optional)



Hairline stainless steel

Outer cladding decoration (Optional)

Painted steel plate

Skirt panel lighting (Optional)



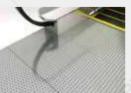
White (Line)



Yellow (Line) Green (Line)

Landing plate

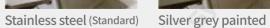




Aluminum alloy (Standard) Stainless steel (Optional)

Inner/outer decking









Beige painted

### E100 Commercial Escalator Layout Drawing

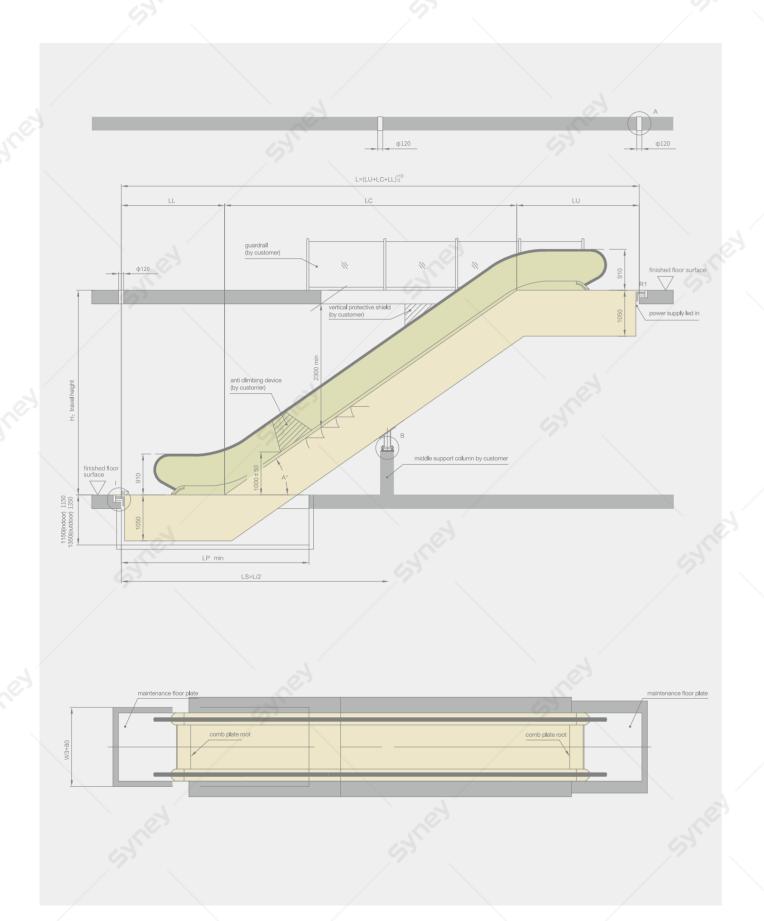


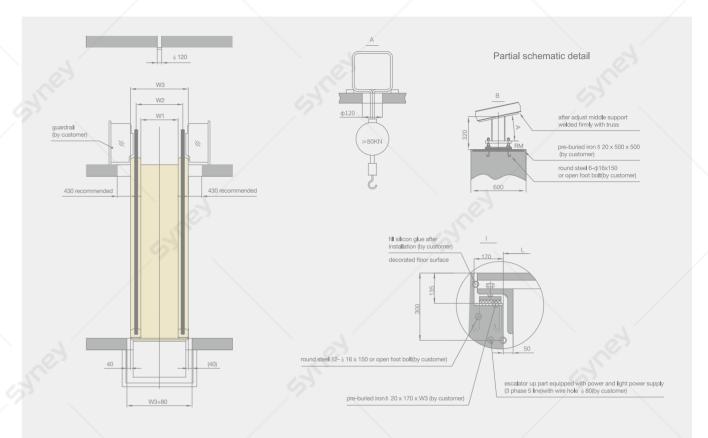












Degree A(°)	Suppports number	Nominal width W1 (mm)	Support force R1(kN) L: (m)	Support force R2(kN) L: (m)	Support force RM1(kN) L: (m)
		600	3.9 x L+21	3.9 x L+16	
35	2	800	4.5 x L+14	3.98 x L+7	
		1000	5.1 x L+13	5.1 x L+5	-77
		600	3.7 x L+25	3.7 x L+20	
	2	800	4.3 x L+18	4.3 x L+11	/—
30		1000	4.9 x L+17	4.9 x L+9	
	3	800	19.1 x L+12	19.1 x L+7	3.82 x L+9
1	3	1000	2.5 x L+16	2.5 x L+8	7.3 x L+5

Degree A(°)	Flat step	LL (mm)	LC (mm)	LU (mm)	Nominal width W1 (mm)	Handrail center distance W2(mm)	Escalator outer width W3 (mm)	Pit length LP (mm)
					1000	1237	1540	
35		2275	1.428 x H	2550	800	1037	1340	4100
	2				600	837	1140	
	2		1		1000	1237	1540	8
30		2245	1.732 x H	2485	800	1037	1340	4300
					600	837	1140	
		77-			1000	1237	1540	
30	3	2645	1.732 x H	2997	800	1037	1340	4700
					600	837	1140	

When the step width is 600mm, LU+417mm.

Note: this drawing is not made in scale, above parameter is only for reference. Construction refers to confirmed contract.

# E1300 HD Public Escalator Layout Drawing

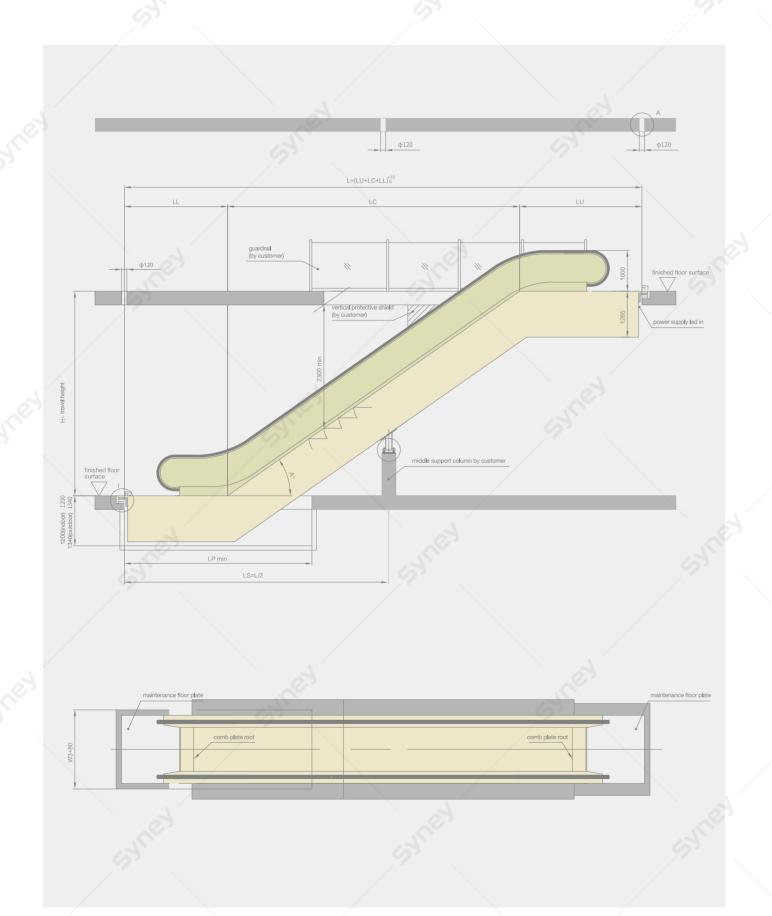


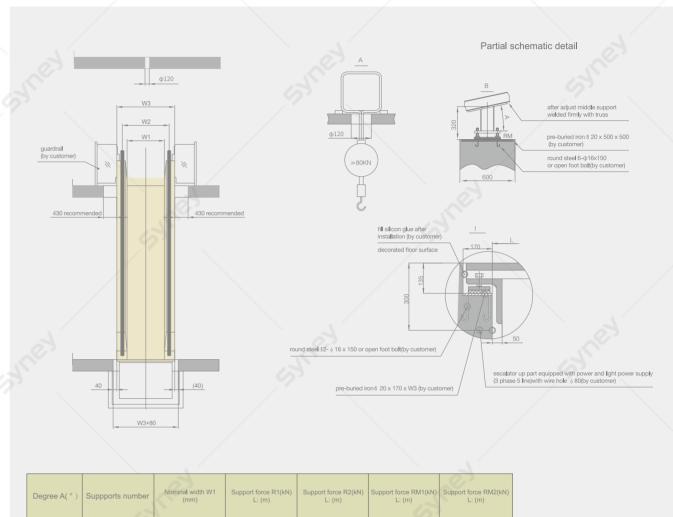












Degree A(°)	Suppports number	Nominal width W1 (mm)	Support force R1(kN) L: (m)	Support force R2(kN) L: (m)	Support force RM1(kN) L: (m)	Support force RM2(kN) L: (m)
	4	800	1.4 x L+23	1.4 x L+3	3.8 x L+15	3.8 x L+15
	7	1000	1.5 x L+23	1.5 x L+3	4 x L+15	4 x L+15
	/ .	800	1.7 x L+23	1.7 x L+3	5.7 x L+15	
30	3	1000	1.9 x L+23	1.9 x L+3	6.5 x L+15	
	2	800	4.6 x L+22	4.6 x L+7		
	2	1000	5 x L+22	5 x L+7		

Pit length LP (mm)	Escalator outer width W3 (mm)	Handrail center distance W2(mm)	Nominal width W1 (mm)	LU (mm)	LC (mm)	LL (mm)	Flat step	Degree A(°)	
5000	1630	1280	1000	3602	1.732 x H	0710		20	
5000	1430	1080	800	3002		2710	2/10	30	
5100	1630	1280	1000	3554	1.938 x H	2000	27.3 2696	27.3	
3100	1430	1080	800	3554	1.936 X H	2090			
5500	1630	1280	1000	3492	0.000 11	2676			
3300	1430	1080	800	3492	2.333 x H	20/6		23.2	

When the step width is 600mm, LU+417mm.

Note: this drawing is not made in scale, above parameter is only for reference. Construction refers to confirmed contract.

### E191 Waving Escalator Layout Drawing

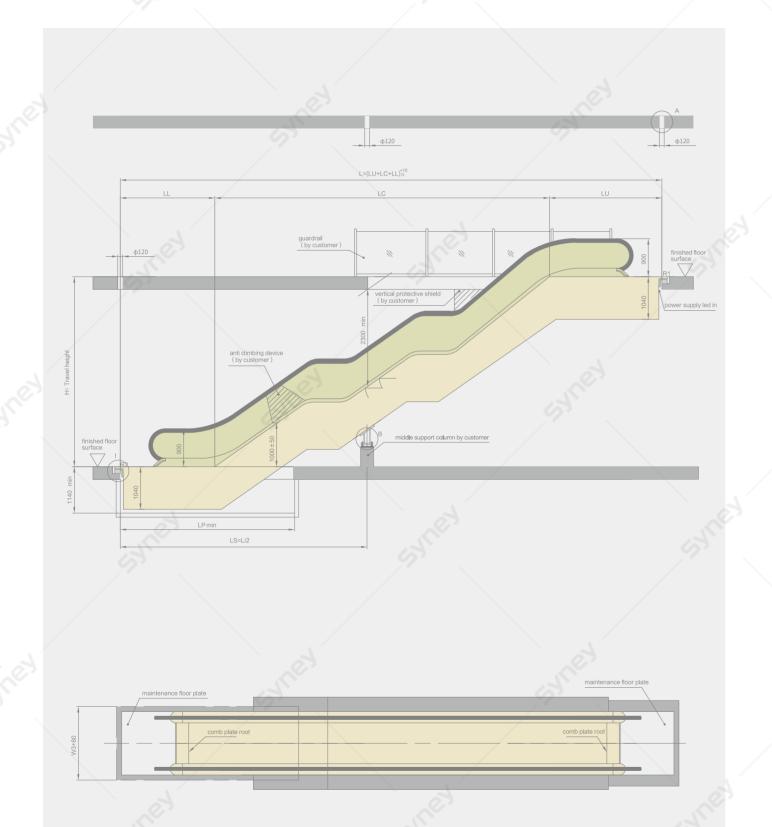


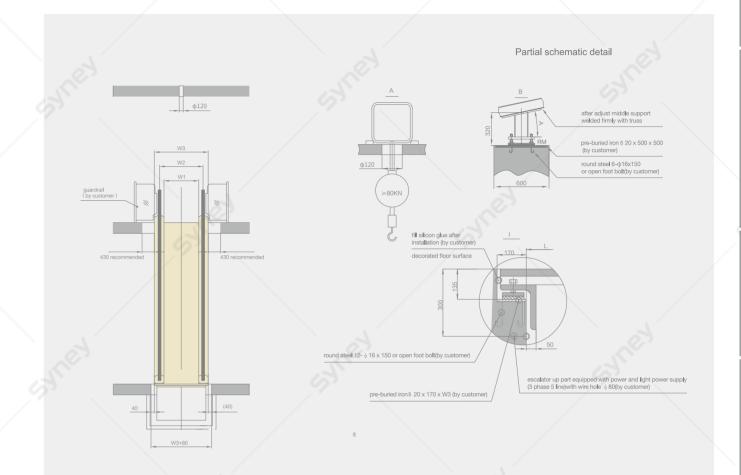












	Degree A(°)	Flat step	LC (mm)	LL (mm)	LU (mm)	Nominal width W1 (mm)	Handrail center distance W2 (mm)	Escalator outer width W3 (mm)	Pit length LP (mm)	
						1000	1237	1540		
	30		1.732 x H+2935	2239	2492	800	1037	1340	4400	
		two flat step				600	837	1140		
	7					1000	1237	1540		
Q	35		1.428 x H+2935	2273	2552	800	1037	1340	4200	
7					(2)	600	837	1140		

Note: this drawing is not made in scale, above parameter is only for reference.

Construction refers to confirmed contract.

# Mini Type Commercial Escalator Layout Drawing (H < 6m)

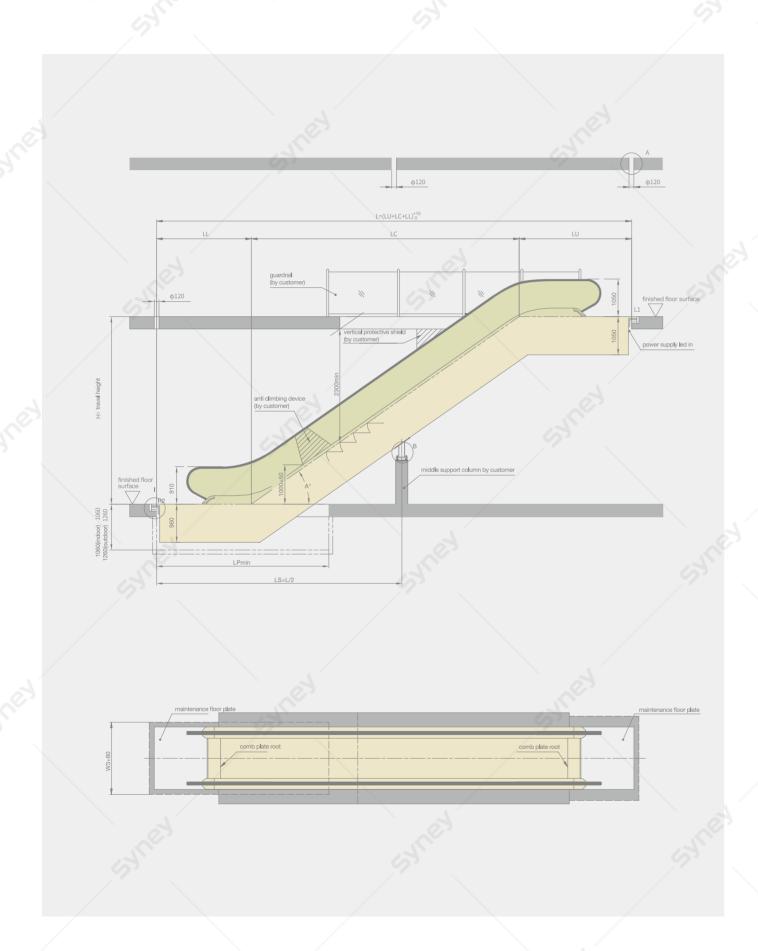


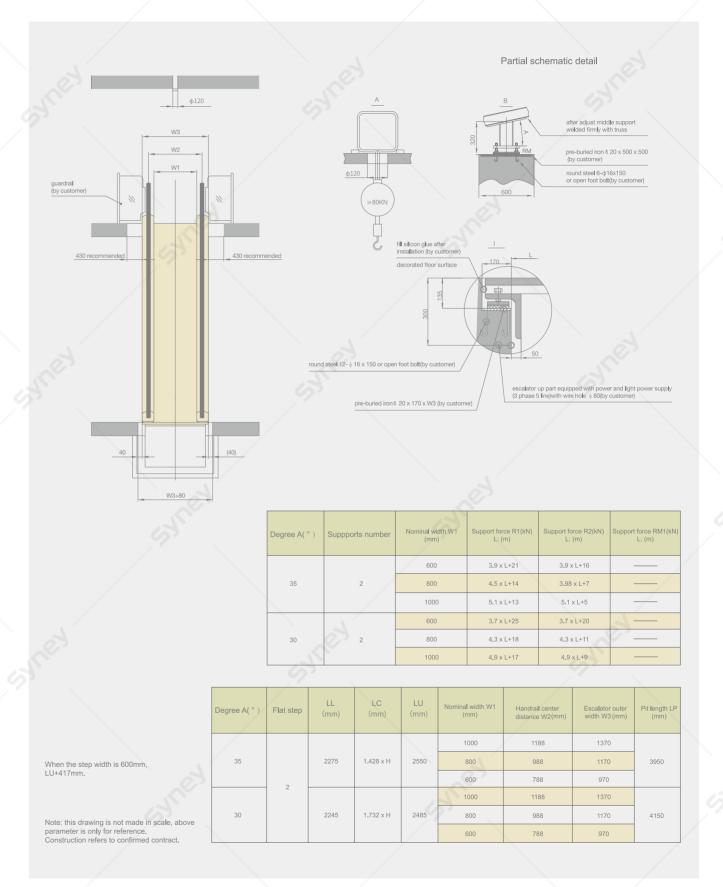












### M1500 Moving Walks Layout Drawing

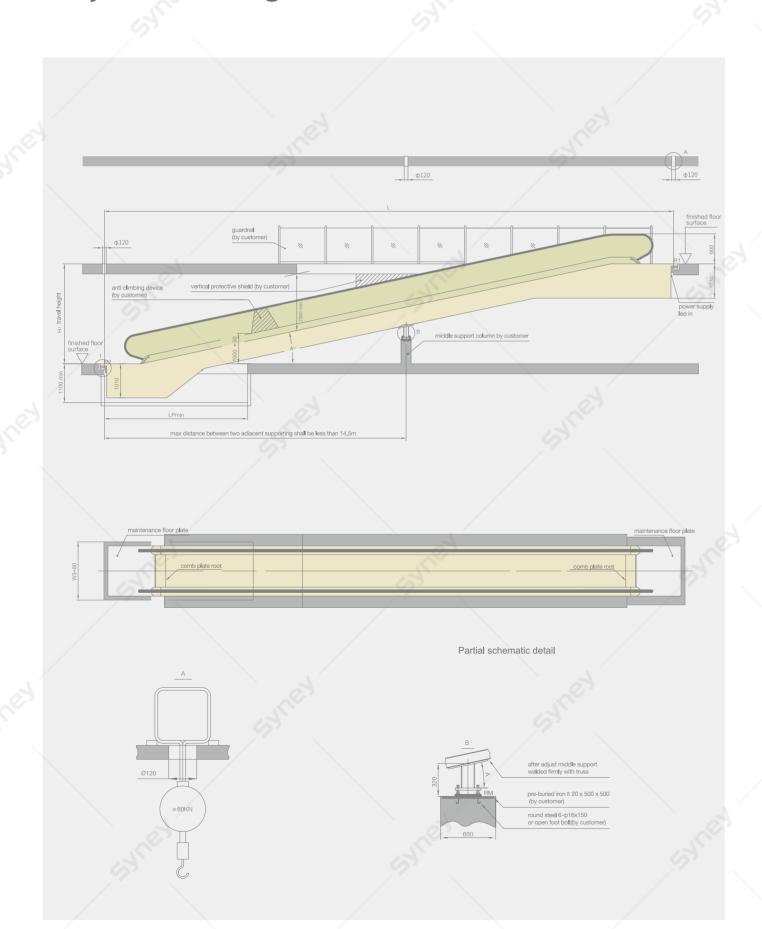


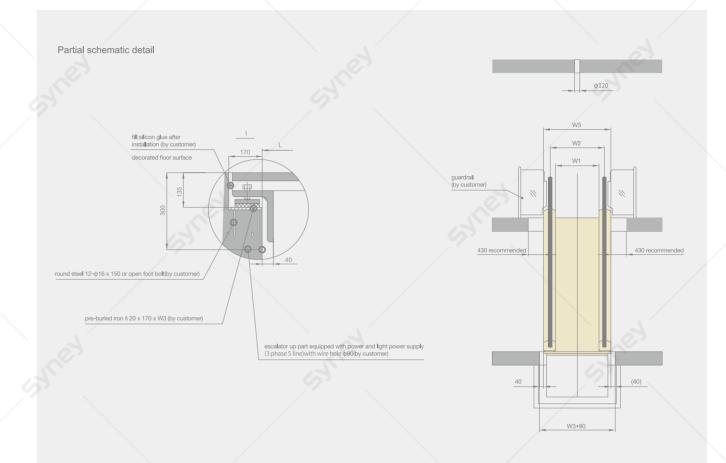












Suppports number	Nominal width W1 (mm)	Support force R1(kN) L: (m)	Support force R2(kN) L: (m)	Support force RM1(kN) L: (m)	Support force RM2(kN) L: (m)
4	800	1.3 x L+19	1.3 x L+11	3.1 x L+10	3.1 x L+11
7	1000	1.5 x L+16	1.5 x L+8	3.45 x L+6	3.45 x L+7
	800	1.9 x L+19	1.9 x L+11	5.2 x L+10	
3	1000	2.2 x L+16	2.2 x L+8	6.1 x L+6	
2	800	4.25 x L+19	4.25 x L+11	<del>/</del>	
	1000	4.9 x L+16	4.9 x L+8	\ <u></u>	

Degree A(°)	LL (mm)	Nominal width W1 (mm)	Handrail center distance W2(mm)	Escalator outer width W3 (mm)	Pit length LP (mm)
10	5.6713 x (H+16.7)+2900	1000	1237	1540	4800
10		800	1037	1340	
 11	5.1446 x H+2900	1000	1237	1540	4500
11		800	1037	1340	4500
40	12 4.7046 x (H-16.7)+2900	1000	1237	1540	4300
12		800	1037	1340	

Note: this drawing is not made in scale, above parameter is only for reference.

Construction refers to confirmed contract.

### M1600 Moving Walks Layout Drawing

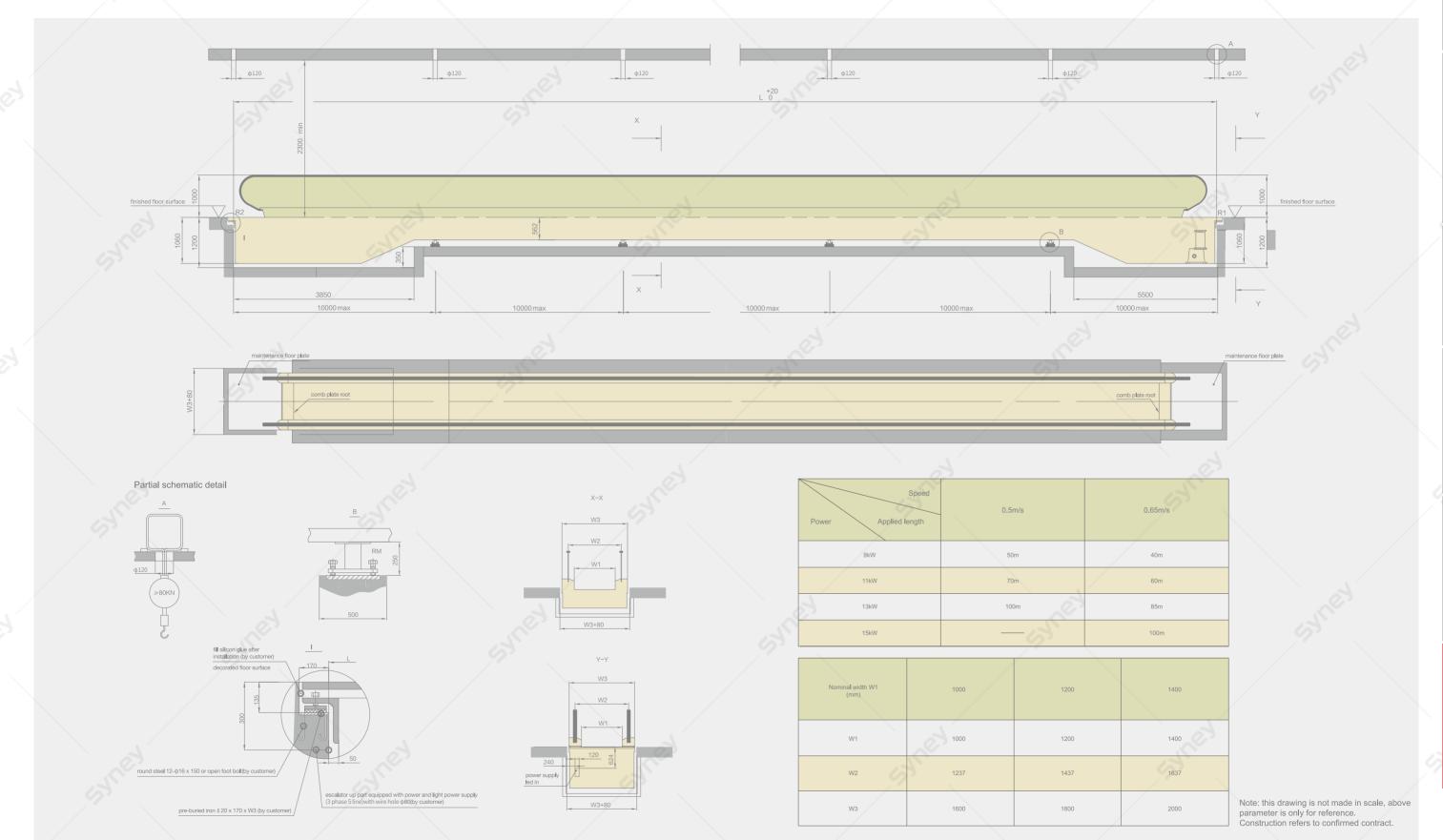




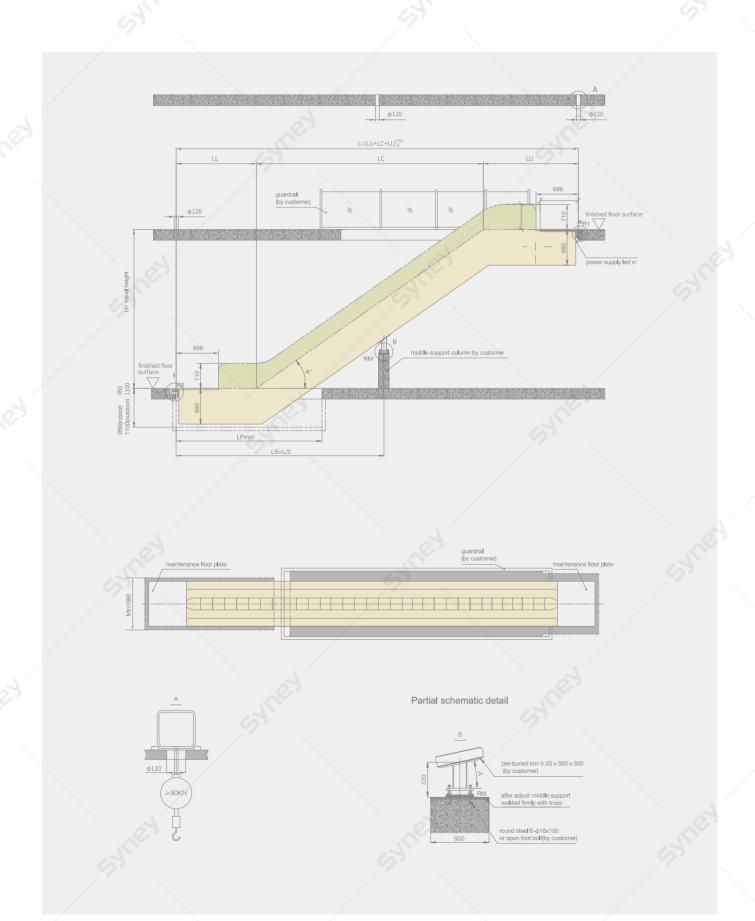








### E-cart



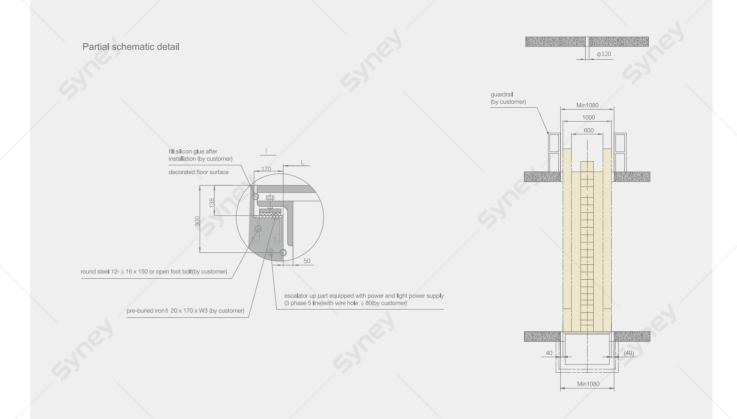












Degree A(°)	Suppports number	Support force R1(kN) L: (m)	Support force R2(kN) L: (m)	Support force RM1(kN) L: (m)
35	2	3.9 x L+21	3.9 x L+16	/
/	2	3.7 x L+25	3.7 x L+20	
30	3	1.5 x L+20	1.5 x L+17	3.3 x L+9

Degree A(°)	LL (mm)	LC (mm)	LU (mm)	Pit length LP (mm)
35	2275	1.428 x H	2550	4100
30	2245	1.732 x H	2485	4300

Note: this drawing is not made in scale, above parameter is only for reference.

Construction refers to confirmed contract.