

HITACHI
Inspire the Next



Caring for you, and making you feel comfortable.
HUMAN FRIENDLY

What we are aiming is to fill a building with safe and comfortable products and services, and to make a town even more pleasant for all the people who live, work and visit there. Always caring for you. Always getting close to you. HUMAN FRIENDLY is the business concept conveying our thoughts.

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RE-C001Q 0719

Hitachi | **TX**^{SERIES}
Escalator

Caring for you, and making you feel comfortable.
HUMAN FRIENDLY



Hitachi's brand-new TX series escalators materialize to its design concepts of Safety, Reliability, Comfort and Durability, and continue its commitment to environment-considered and energy-saving, as well as its pursuits of high quality, which provides efficient and convenient transportation solutions for buildings.

Note: CGs presented in this catalogue are based on the recommended specification of Hitachi, with some options are included. Actual product may vary depending on selected specifications.

CONTENTS

Safe and Reliable	01-06
Efficiency and Energy-saving	07-10
Diversified Design	11-14
Product Specification	15-18



SAFE AND RELIABLE

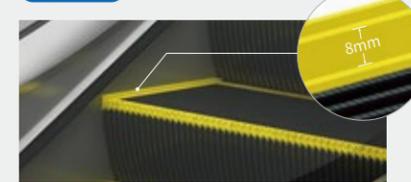
Provide all-around protection for passengers.

Hitachi's TX series escalators deliver safety and "human friendly", through continuous challenges and innovations, to improve the safety of the escalator comprehensively through various protective designs.



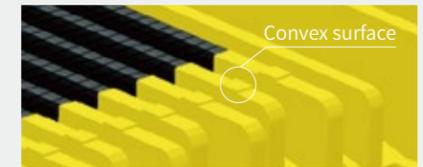
• Safety of step

Optional

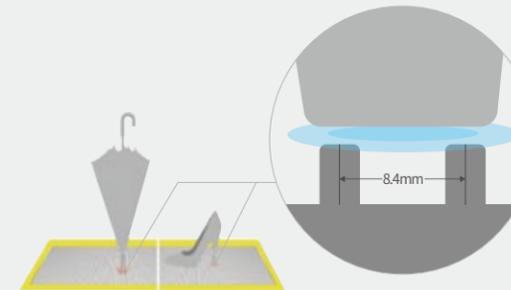


8mm raised cleats on both sides of step, unique four sides demarcation lines design effectively guide passenger onto the safe standing area to prevent entrapment.

Optional



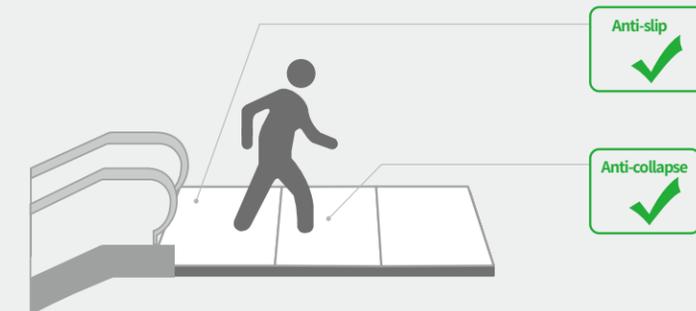
0.5mm convex surface on each stainless steel step the demarcation line area at the rear of each step, which enhance the passenger's touch feeling of stepping onto, to reduce the risks of slipping.



Standard

The safe tooth pitch of step cleat is **8.4mm**, effectively prevent the high-heeled shoes and umbrellas from being entrapped into its teeth.

• Safety of landing plate



Anti-slip **Standard**

The anti-slip pattern meet the assessment group of **R10**, to effectively prevent the passengers from slipping.(Conforming to DIN51130 standard).

Anti-collapse **Standard**

The embedded rectangular landing plate is fitted onto safe and reliable support structure, to avoid any shifting and falling of landing plate.

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● Safety detection



Reversal protection Standard

Emergency Braking Safety Gear can be provided for $H \leq 6m$ in addition to the main operation brake, for safe braking in the event of chain breakage.



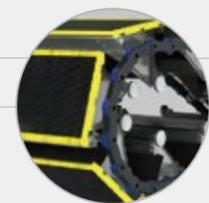
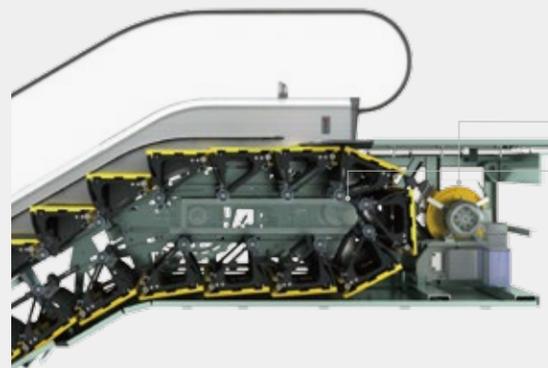
Area safety detection Optional

When the sensor detects passenger movement beyond the handrail, a voice announcement will alert the passenger.

*Note: Sensor is usually set up on one side where there is obstacle. In case of customer requesting to have sensor on both sides, please contact Hitachi.

Electronic safety monitor Standard

TX escalator entirely enhance the electronic system safety performance. By comparing the operating status of main **Machine** and **Step** which improve the redundancy detection, avoiding overspeed and reversal situation, the electronic safety integrity level achieve to SIL3 (higher than EN Standard of SIL2).

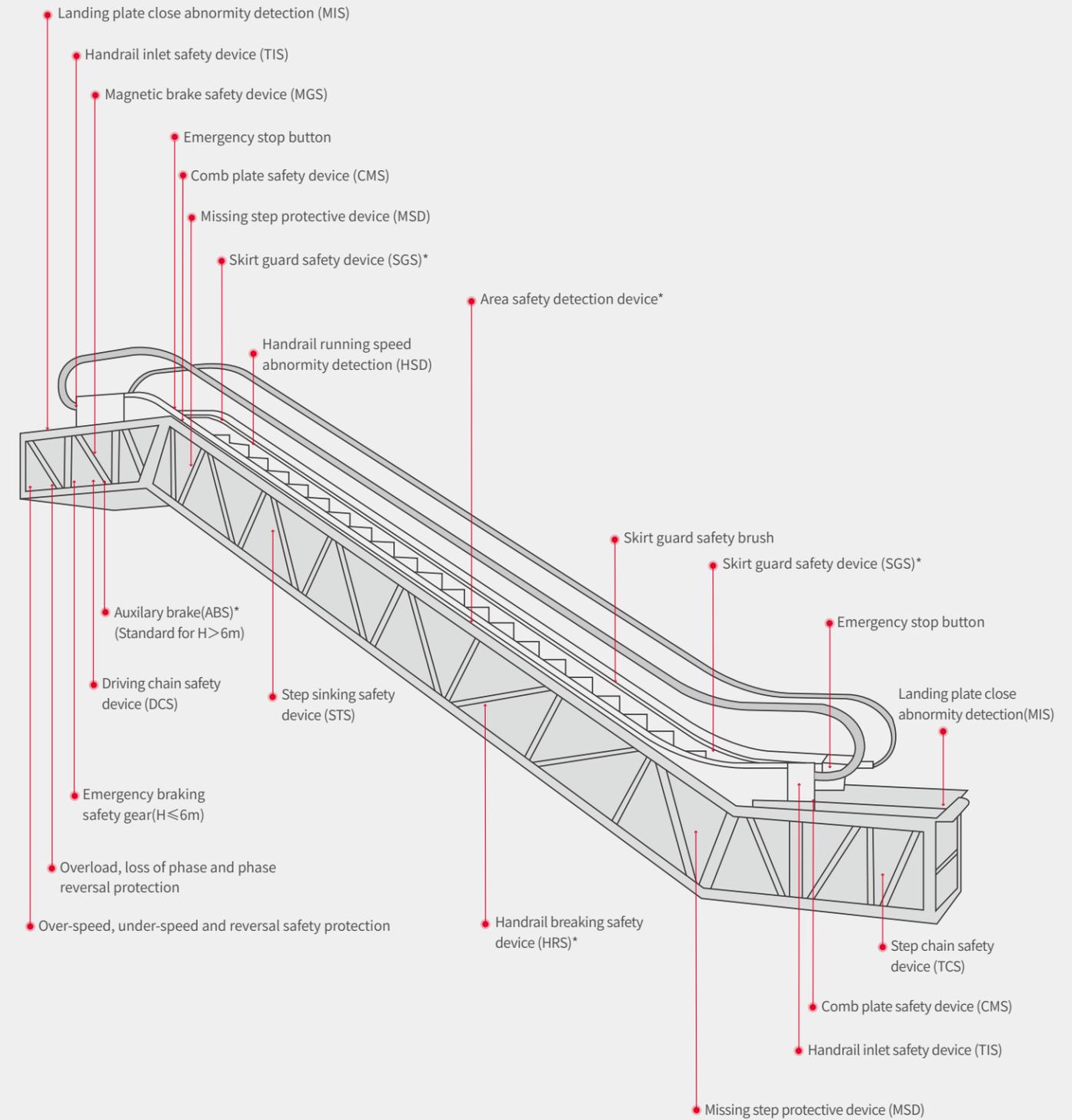


Step operation detection



Main machine operation detection

● Full range of safety protection devices



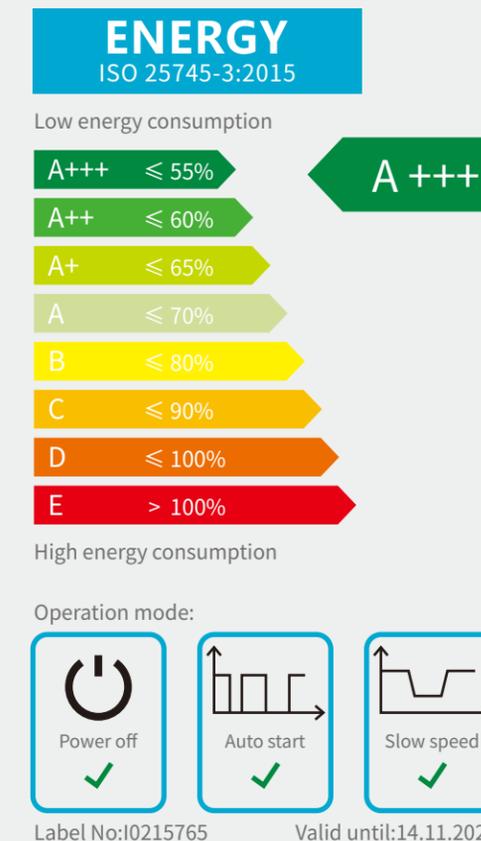
*: Optional



EFFICIENCY AND ENERGY SAVING

Assist the environmentally conscious saving operation, energy-saving buildings.

Comprehensively improve the drive technology, to achieve better efficiency and energy saving; in addition, provide choices of operation modes according to passenger flow, to maximize customer's benefits .

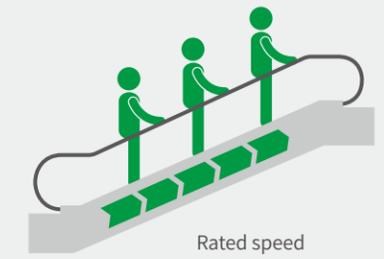
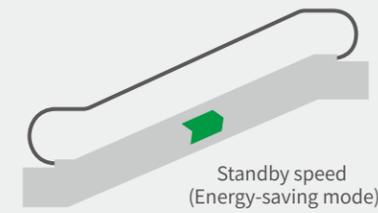


Hitachi TX Escalator satisfies Class A+++ , the highest level specified in ISO 25745-3 “Energy performance of lifts, escalators and moving walks -- Part 3”

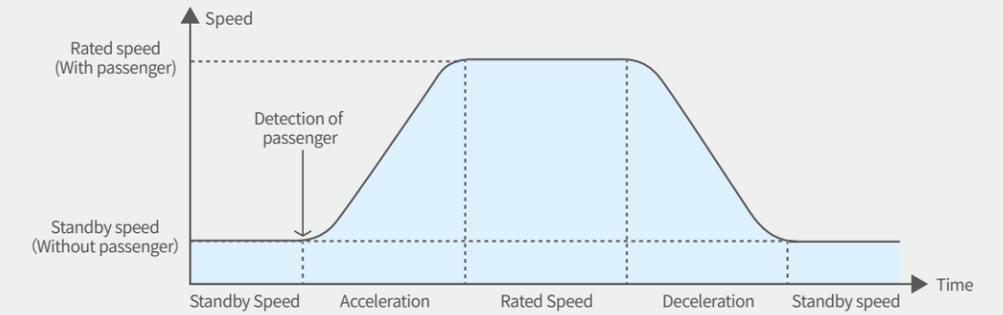


● Energy Saving Mode Optional

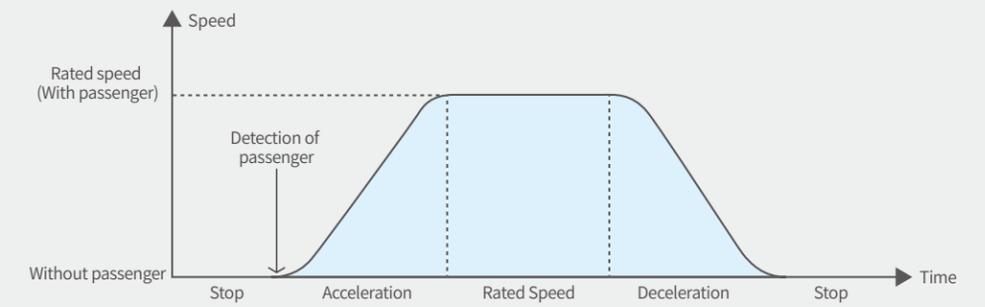
When the sensor detects no passenger for a predetermined period of time, the escalator automatically enters the energy-saving mode. When the sensor detects an approaching passenger, the escalator gradually accelerates to the rated speed.



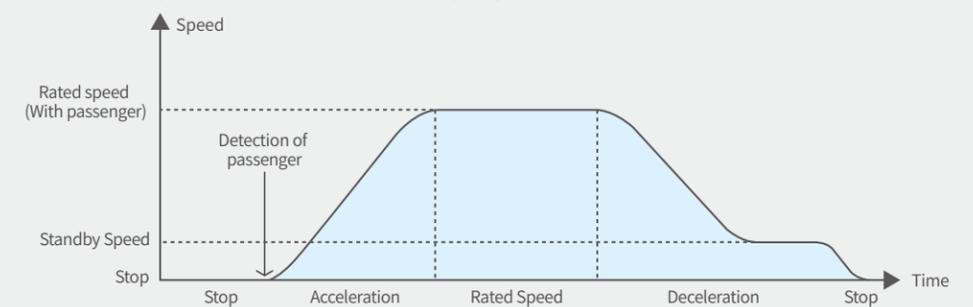
Auto dual speed operation



Auto start-stop operation



Auto dual speed + Auto start-stop operation



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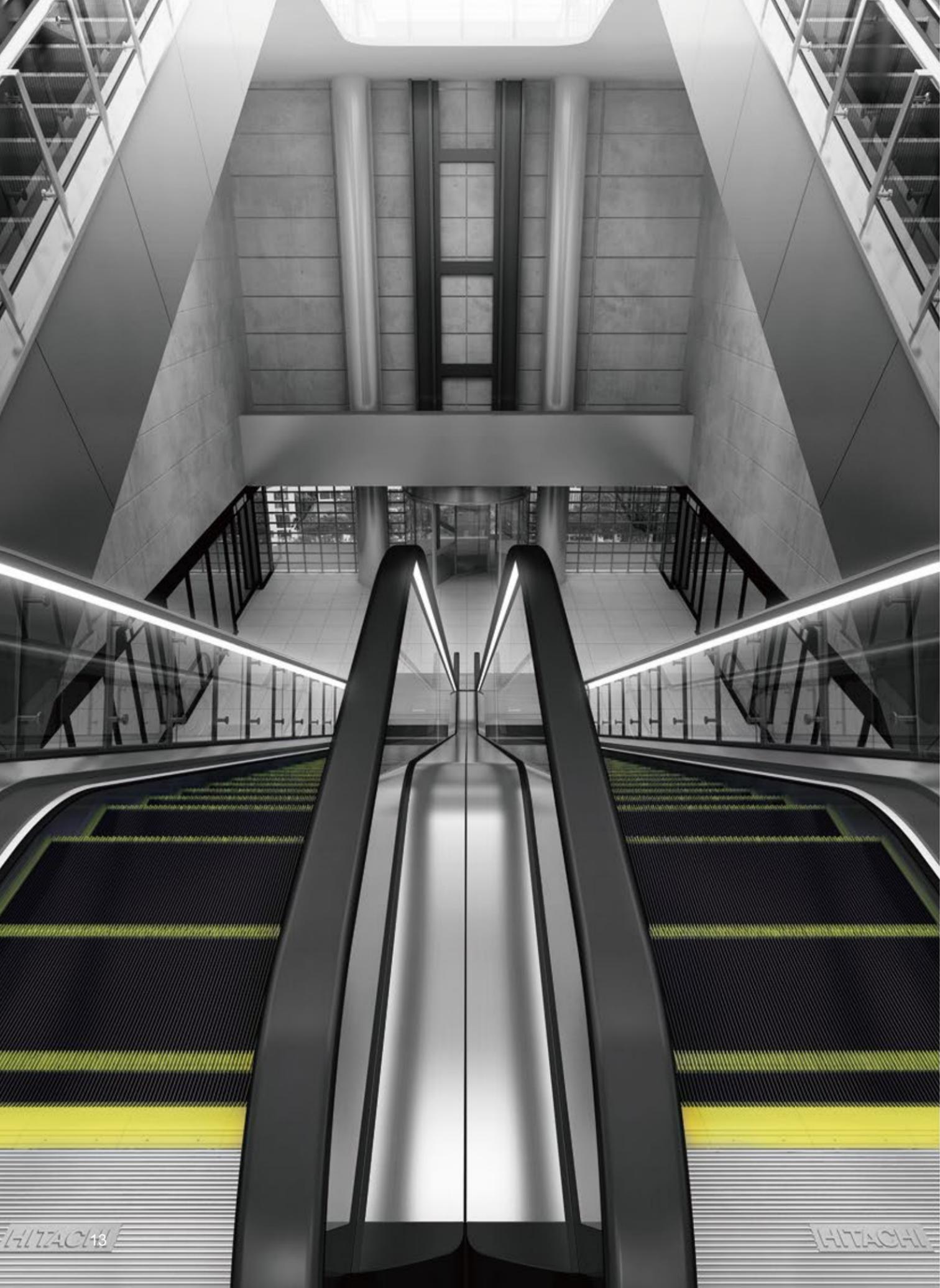


DIVERSIFIED DESIGN

Match perfectly with buildings.

Escalators are important features for building passenger traffic. The decorative configuration of escalator will affect the overall space architecture in the buildings. As for the upgrade of products, Hitachi promotes the diversified design, to adapt to the different decoration styles of shopping malls and buildings.

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● Enhance the space utilization

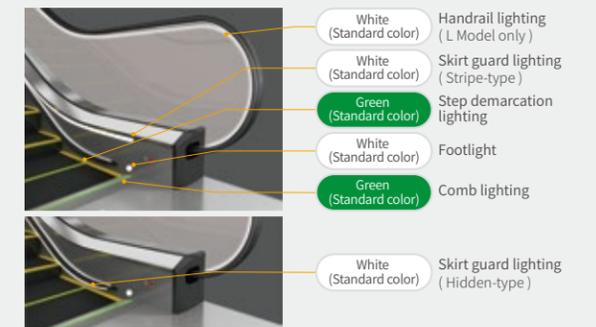
Standard

TX series escalators brand new technological innovation optimizes truss structure size, saving additional space to be used for more valuable purposes for the customers.



● LED lighting

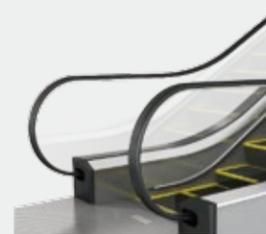
Optional



(LED color selection: white, green, red, blue and light-yellow)

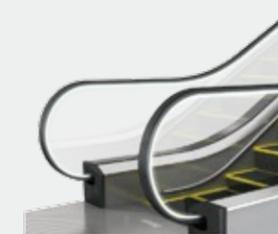
● Balustrade design

Simple appearance design of the balustrade, will naturally guide passengers to slip the handrail. Optional LED handrail lights will further enhance architecture design.



TX-EN Model

Transparent tempered glass



TX-L Model

Transparent tempered glass + handrail lighting



TX-P Model

Hairline stainless steel

● Handrail colors

Standard



Black

Optional



Gray



Red



Blue



Beige



Green



Brown

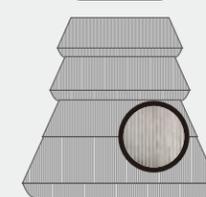


Charcoal

Note: Printed color and actual color may differ slightly

● Step design

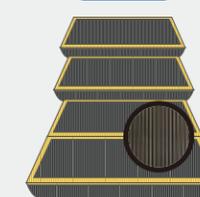
Standard



Standard for Indoor

Aluminum alloy
No painting
(No demarcation line)

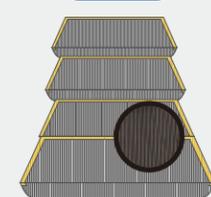
Optional



Option for Indoor

Stainless steel
Painting
Reinforced synthetic resin
Around 4 edges
(Fluorescent yellow)

Optional



Standard for Outdoor

Aluminum alloy
Painting
3 edges yellow boundary
(Painting)

Note: These CGs are based on the recommended specification of Hitachi, with some options are included. Actual product may vary depending on selected specifications.



PRODUCT SPECIFICATION

Note: These CGs are based on the recommended specification of Hitachi, with some options included. Actual product may vary depending on selected specifications.

Functional Configuration

	Function	Standard	Optional
Safety device	Step chain safety device(TCS)	√	
	Driving chain safety device(DCS)	√	
	Comb plate safety device(CMS)	√	
	Handrail inlet safety device(TIS)	√	
	Step sinking safety device(STS)	√	
	Handrail running speed abnormality detection(HSD)	√	
	Missing step protective device(MSD)	√	
	Landing plate close abnormality detection(MIS)	√	
	Magnetic brake safety device(MGS)	√	
	Skirt guard safety brush	√	
	Over-speed,under-speed and reversal safety protection	√	
	Emergency stop button	√	
	Overload,loss of phase and phase reversal protection	√	
	Fault detection on important components of control panel	√	
	Safe stopping distance detection	√	
	Emergency braking safety gear	√(H≤6m)	
	Protection against electrostatic loading	√	
	Auxiliary brake(ABS)	√(H>6m)	√(H≤6m)
	Skirt guard safety device(SGS)		√
	Handrail breaking safety device(HRS)		√
Area safety detection device		√	
Automatic running	Auto Lubrication	√(Outdoor)	√(Indoor)
	Auto dual speed		√
	Auto start-stop		√
	Auto dual speed+auto start-stop		√
	Constant speed only	√	
	Running direction indicator		√
Fault handling	Fault alarm	√	
	Fault recording	√	
	Fault display at control panel		√
	Fault display at skirt guard		√
Monitoring	Dry contact interface		√
Other functions	EN115-1:2008+A1:2010		√
	Fire alarm,shutter gate ,earthquake operation interface (when escalator receives signal, escalator stops)		√
	Earthquake sensor		√
	Automatic broadcast		√

Standard specifications by escalator model

	1200 Type	1000 Type
Nominal width (mm)	1200	1000
Step width (mm)	1004	802
Maximum capacity (persons/h)	6000	4800
Rated speed (m/s)	0.5	
Angle of inclination	30°/ 35°	
Power supply	50/60Hz,AC 3-phase 220/230/380/400/415/440/460/480V, Single-phase 110/220/230/240V	
Motor	Three-phase AC induction motor	
Operation method	Key switch operation,reversible	
Operating environment	Indoor/Outdoor	

Name	Model	TX-EN	TX-L	TX-P	
Balustrade	Standard	Interior panel	Transparent tempered glass		
		Handrail lighting	-	LED (White)	-
		Handrail	Polyurethane (Black)		
		Skirt guard	Indoor: Painted steel, Outdoor: Raw stainless steel		
	Inner and outer deck	Indoor: Painted steel, Outdoor: Hairline stainless steel			
	Optional	Skirt guard lighting	Hidden-type/Strip-type LED (White)		
	Footlight	LED (White)			
Floor	Standard	Comb	Reinforced synthetic resin (Fluorescent Yellow)		
		Comb plate	Aluminum alloy		
		Landing plate	Aluminum alloy		
	Optional	Comb lighting	LED (Green)		
Step	Standard	Step cleat and step riser	Indoor:Aluminum alloy (No painting) , Outdoor: Aluminum alloy		
		Demarcation line	Indoor: No demarcation line Outdoor: 3 edges yellow boundary (Painting)		
	Optional	Demarcation lighting	LED (Green)		

Power Supply Source from Building 3-Phase/ Frequency	Model	Rise H(mm)	Escalator Motor Capacity (kW)	Control Panel Circuit Breaker Size (A)	Required Building Side Circuit Breaker		Required Building Side Transformer (kVA)	Minimum Section Area for GND (earthing) Wire (sqmm)
					Current(A)*1	Curve		
220V, 230V 50/60Hz	1000 Type	H≤ 5500	5.5	40	≥ 40	D	12.5	4
		5500< H ≤ 7500	7.5	50	≥ 50	D	16	8
		7500< H ≤ 9500	11	63	≥ 63	D	18	10
	1200 Type	H≤ 4500	5.5	40	≥ 40	D	12.5	4
		4500< H ≤ 6000	7.5	50	≥ 50	D	16	8
		6000< H ≤ 9500	11	63	≥ 63	D	18	10
380-415V,440V,460V,480V 50/60Hz	1000 Type	H≤ 5500	5.5	32	≥ 32	D	12.5	4
		5500< H ≤ 7500	7.5	32	≥ 32	D	16	6
		7500< H ≤ 9500	11	40	≥ 40	D	18	8
	1200 Type	H≤ 4500	5.5	32	≥ 32	D	12.5	4
		4500< H ≤ 6000	7.5	32	≥ 32	D	16	6
		6000< H ≤ 9500	11	40	≥ 40	D	18	8

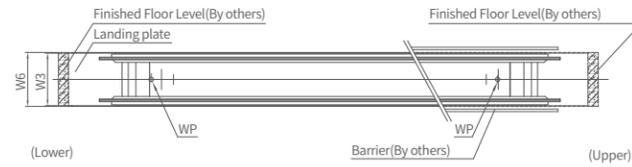
*1: Setting value of leakage current detector ≥300 (mA)

Escalator planning data for 30°inclination escalator

Applicable for Rise H ≤ 6000mm

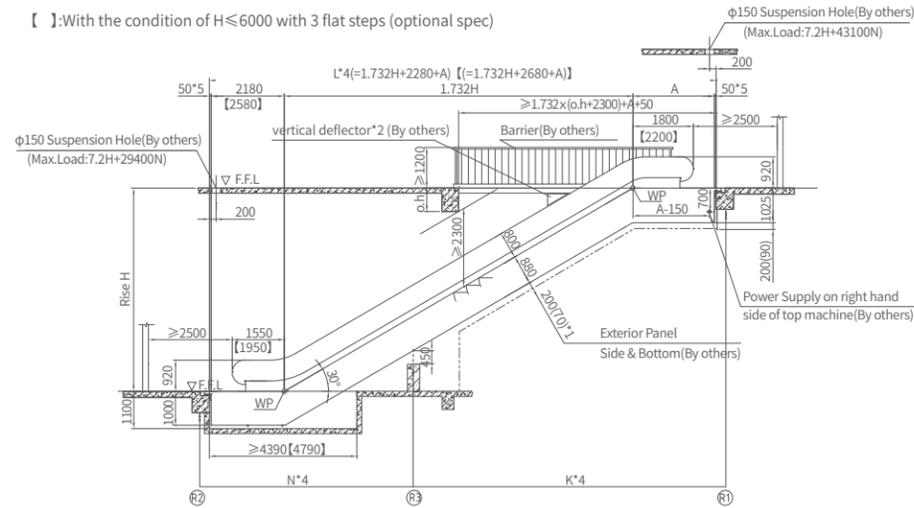
(Unit: mm)

Escalator plan view

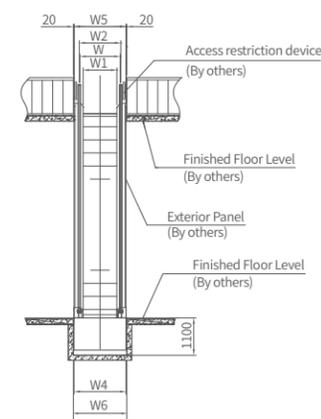


Escalator side view

【 】:With the condition of H≤6000 with 3 flat steps (optional spec)



Escalator front view



External Dimension(Length)(mm)

Code	Type	Rise	No. of flat steps	A (mm)	
				380~415V 50/60Hz	220,230,440,460,480V 50/60Hz
Standard EN115-1 2008+A1(2010)	1000Type 1200Type	H ≤ 6000	2	2430	2830
			3	2830	3230
		6000 < H ≤ 7500	3		
			3		
		7500 < H ≤ 9500	3	2930	

Reaction Load(N)

No.	Model	Rise H(mm)	Number of supporting beam	Number of flat step	R1	R2	R3	R4
1	1200 Type	H ≤ 9500	2	2	9.2H+35000	9.2H+28000	-	-
2				9.2H+38600	9.2H+31360	-	-	
3			2/3	5.2K+14000	5.2N+4000	5.2(K+N)+5000	-	
4			2/3	5.2K+14000	5.2M+4000	5.2(K+M)+5000	5.2(J+M)+2000	
5	1000 Type	H ≤ 9500	2	2	8.4H+33000	8.4H+26000	-	-
6				3	8.4H+36200	8.4H+28960	-	-
7			2/3	4.6K+14000	4.6N+4000	4.6(K+N)+5000	-	
8			2/3	4.6K+14000	4.6M+4000	4.6(K+M)+5000	4.6(J+M)+2000	

Note: *1. If no bottom lights or pipelines need to be installed between the truss and the exterior panel, this dimension is 70mm at the inclined section and 90mm at the horizontal section.
 *2. When the distance between the center line of handrail and the escalator or any obstacle in the building is less than 500mm, vertical deflector without any sharp edges shall be installed at the intersection.
 *3. Dimension of bearing plate for both ends : 150mm (W) × 20mm (T) × 1590mm (L) [1200 type]/1390mm(L) [1000type].
 *4. If L is more than 15102mm, an intermediate support beam is required. K, M, N, J ≤ 15100 mm.
 *5. Upon planning, the gaps(clearances) between Escalator and building at both upper and lower part must be designed within the range of 40~90mm including the tolerance at the building side.

Overall Dimension (Width)(mm)

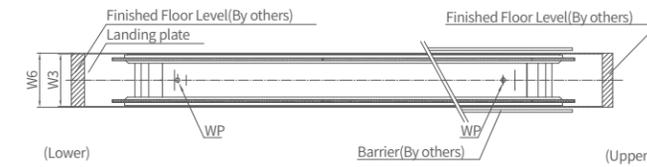
	1200 Type	1000 Type
W (Balustrade)	1226	1026
W1 (Step)	1004	802
W2 (Handrail)	1236	1036
W3 (Landing plate)	1550	1350
W4 (Truss)	1510	1310
W5 (Total width of escalator)	1550	1350
W6 (Min.pit/opening)	1590	1390

Escalator planning data for 30°inclination escalator

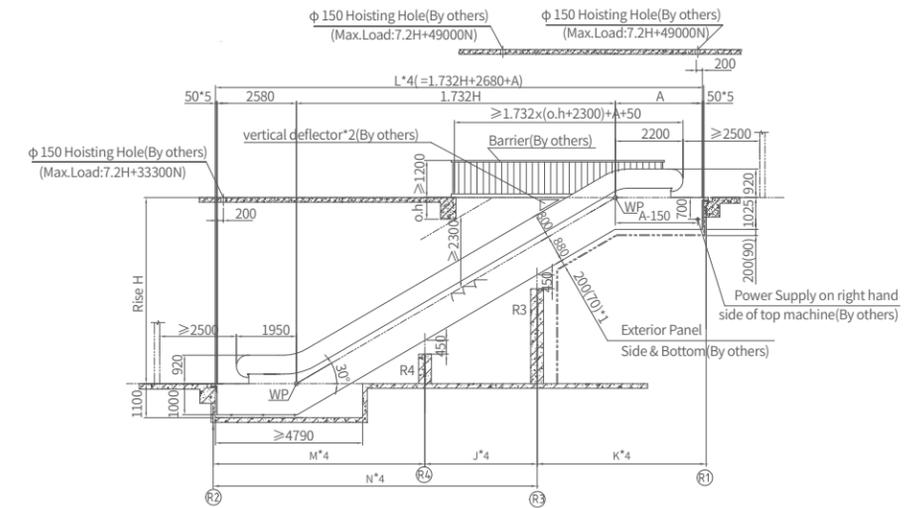
Applicable for Rise 6000mm < H ≤ 9500mm

(Unit: mm)

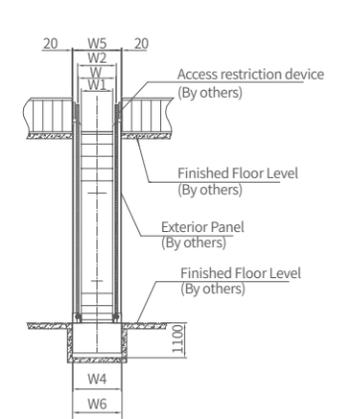
Escalator plan view



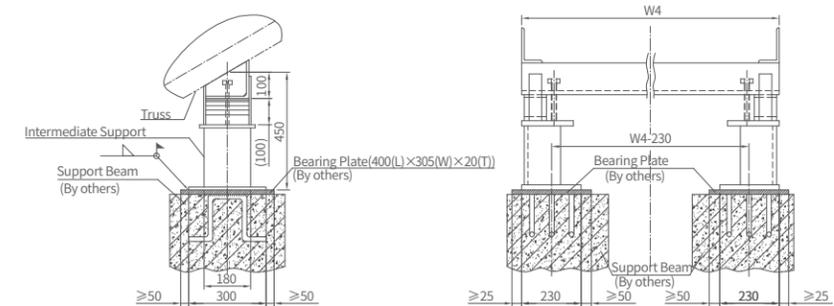
Escalator side view



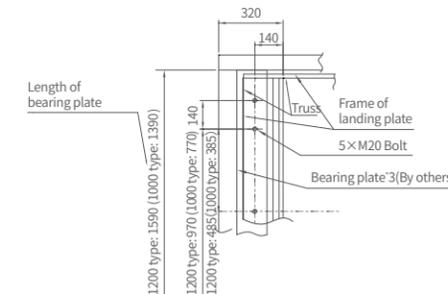
Escalator front view



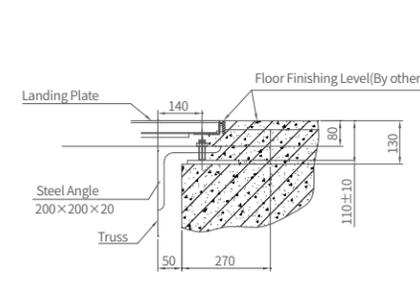
Intermediate frame supporting beam portion



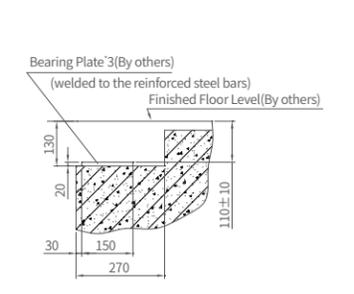
Details of supports on both ends



Frame supporting portion



Frame supporting portion (Construction)





Work done by others for escalators

● Construction related work (Supply and install)

Item	Work Description
1.	Opening of holes in floor slabs for installation use and recovery work.
2.	Installation of supporting beams for installation use.
3.	Opening of suspension holes in floor slabs or sleeve holes for carrying the escalator into place and performing recovery work.
4.	Lowest floor and escalator bottom pits and waterproofing work. (if there is any resident room below the lower machine room, the pit work will be of refractory construction).
5.	Finishing work for floors and ceilings around the escalator after completion of escalator installation.
6.	Installation & finishing works to barrier and walls around the escalator.
7.	External panels on escalator frame (truss).
8.	Installation of triangular caution mark in places where the escalator and building ceiling or one escalator and another intersects.
9.	If the space between escalators is a stairwell, installation of intermediate down walls, ceilings, handrails, and advance prevention partitions.
10.	Joint work in places where the escalator and the building's ceiling border.
11.	Installation of fall protection nets, etc, if the space between the escalator and the building's floor is stairwell or the space between one escalator and another is a stairwell.
12.	Preparation of an entrance to carry in the escalator and perform recovery work if the escalator is to be installed in an existing building.
13.	Protection work around the escalator if the escalator is to be installed in an existing building.
14.	Opening of a hole in the wall if the operation panel of the escalator is to be installed in the building's wall.

● Electrical equipment related work(Supply and install)

Item	Work Description
15.	Main power supply for the drive motor: lead-in up to the upper control board of the escalator.
16.	Power supply for inspection and maintenance : lead-in up to the upper control board of the escalator.
17.	Grounding wire: lead-in up to the upper power receiving panel of the escalator.
18.	Piping and wiring for the supervisory panel: lead-in from the installation area of the supervisory panel to the power receiving panel of the escalator.
19.	Piping and wiring work if the escalator's operation panel is separately installed (built into the wall, etc).
20.	Selector switch and its installation for escalator bottom lighting.
21.	Installation of emergency lighting.
22.	Installation of sprinklers, broadcasting speakers, guide lights, etc.
23.	The intensity of illumination at the entrance and exit of escalator shall be at least 50 lux and 15 lux respectively.

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